Description of document:	A copy of each Transportation Security Administration (TSA) report provided to Congress (or a Congressional Committee) which is not posted on the TSA public website, 2007-2014
Requested date:	07-July-2014
Released date:	27-April-2016
Posted date:	01-August-2016
Source of document:	Transportation Security Administration Office of Civil Rights & Liberties, Ombudsman, and Travel Engagement (CRL/OTE) ATTN: Freedom of Information Act Office 601 South 12th Street Arlington, VA 20598-6033 Fax: 571-227-1406 E-mail: FOIA@tsa.dhs.gov

U.S. Department of Homeland Security
Freedom of Information Act Branch
601 South 12th Street
Arlington, VA 20598-6020

Transportation Security Administration

April 27, 2016

3600.1
Case Number: 2014-TSFO-00441

This letter is an interim response to your Freedom of Information Act (FOIA) request dated July 07, 2014, addressed to the Transportation Security Administration (TSA) FOIA Branch seeking "a copy of each report provided to Congress (or a Congressional Committee) which is not posted on the TSA public website…to [include] reports dated since January 1, 2010."

The processing of your request identified certain materials that will be released to you. Portions not released are being withheld pursuant to the Freedom of Information Act, 5 U.S.C. § 552. Please refer to the Applicable Exemptions list at the end of this letter that identifies the authority for withholding the exempt material, which is indicated by a mark appearing in the block next to the exemption. An additional enclosure with this letter explains these exemptions in more detail. We are continuing the processing of your request and will have our final response to you as quickly as possible.

The rules and regulations of the Transportation Security Administration applicable to Freedom of Information Act requests are contained in the Code of Federal Regulations, Title 6, Part 5. They are published in the Federal Register and are available for inspection by the public.

Fees

There are no fees associated with processing this request because the fees incurred do not exceed the minimum threshold necessary for charge.

Administrative Appeal

In the event that you wish to appeal this determination, an administrative appeal may be made in writing to Kimberly Walton, Assistant Administrator, Office of Civil Rights & Liberties, Ombudsman and Traveler Engagement (CRL/OTE), Transportation Security Administration, 601 South 12th Street, East Building, E7-121S, Arlington, VA 20598-6033. Your appeal **must be submitted within 60 days** from the date of this determination. It should contain your FOIA request number and, to the extent possible, the reasons why you believe the initial determination should be reversed. In addition, the envelope in which the appeal is mailed should be prominently marked "FOIA Appeal." Please note that the Assistant Administrator's determination of the appeal will be administratively final.

If you have any questions pertaining to your request, please feel free to contact the FOIA Branch at 1-866-364-2872 or locally at 571-227-2300.

Sincerely,

Regina L McCoy

Regina McCoy
FOIA Officer

Summary:
Number of Pages Released in Part or in Full: 623
Number of Pages Withheld in Full: 20

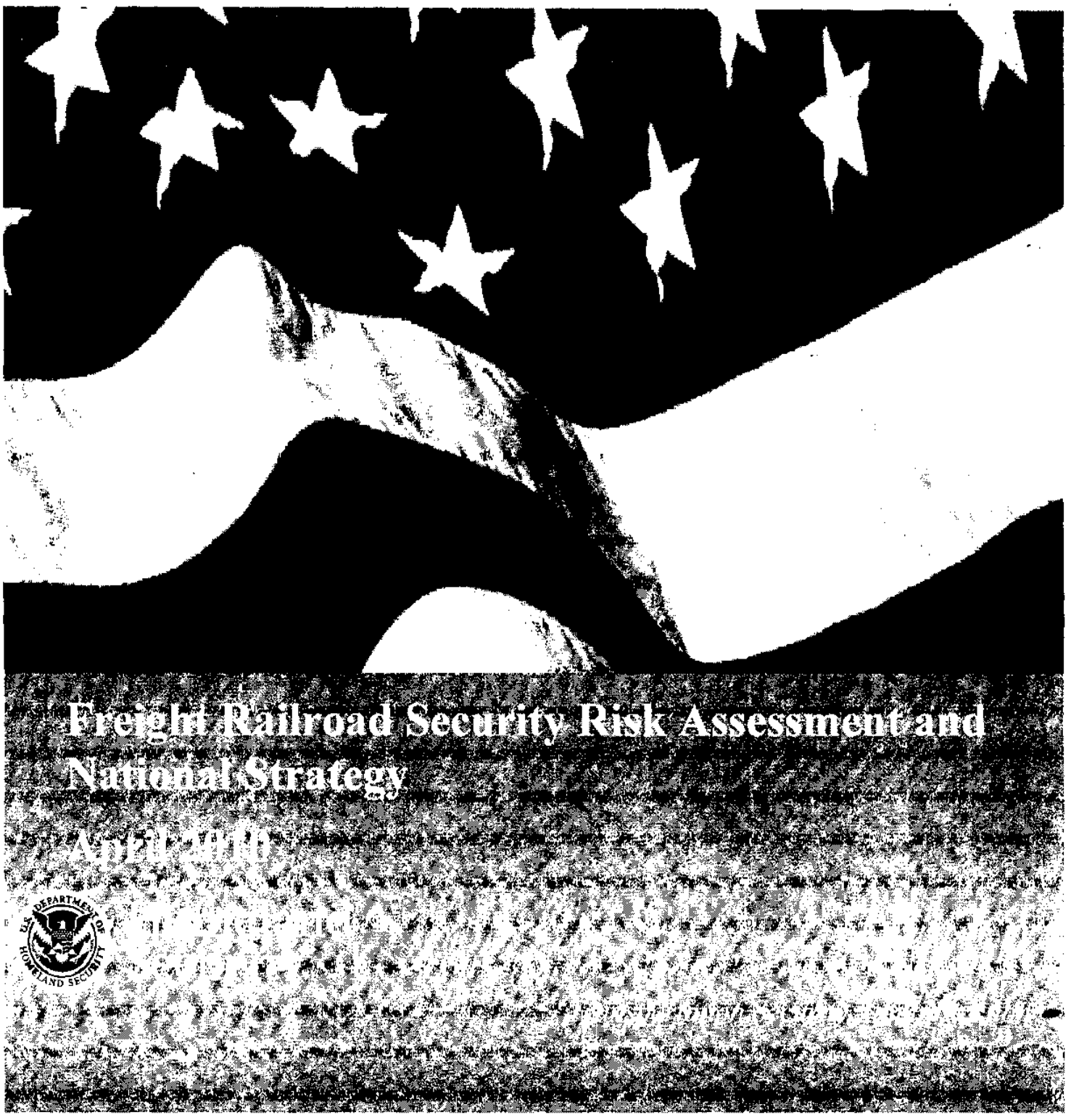
APPLICABLE EXEMPTIONS
FREEDOM OF INFORMATION ACT AND/OR PRIVACY ACT

Freedom of Information Act (5 U.S.C. 552)

☐ (b)(1) ☐ (b)(2) ☒ (b)(3) ☐ (b)(4) ☐ (b)(5) ☒ (b)(6)

☐ (b)(7)(A) ☐ (b)(7)(B) ☐ (b)(7)(C) ☐ (b)(7)(D) ☐ (b)(7)(E) ☐ (b)(7)(F)

Enclosures



Freight Railroad Security Risk Assessment and National Strategy

April 2007

Message from the Acting Administrator

On behalf of the Transportation Security Administration (TSA), I am pleased to present the findings of the Freight Railroad Transportation Security Risk Assessment and an accompanying National Strategy. This report is in response to a requirement in the *Implementing Recommendations of the 9/11 Commission Act of 2007* (9/11 Act), Public Law 110-53, Section 1511. It provides the results of a comprehensive assessment of the risk of a terrorist attack involving the Nation's railroad transportation system. This report addresses issues in freight rail transportation and the interaction between freight railroad operators and passenger railroads such as the National Railroad Passenger Corporation (Amtrak). A more detailed description of the risk assessment for public transportation operations is contained in the Mass Transit Annex to the 2010 Transportation Systems Sector-Specific Plan, which incorporates the requirements of the National Strategy for Public Transportation Security enumerated in Section 1404 of the 9/11 Act.

The Secretary of the Department of Homeland Security (DHS) delegated responsibility to TSA to complete a nationwide risk assessment examining the potential threat, vulnerabilities, and consequences of a terrorist attack involving the Nation's freight railroad transportation system, and to develop a National Strategy to mitigate security risks concerning the Nation's freight rail system.

TSA completed this risk assessment in conjunction with other DHS entities, Federal partners, and industry members. TSA consulted with a wide range of freight rail transportation system stakeholders in preparing this report.

This document is marked as Sensitive Security Information and special handling procedures apply to its storage and transmission.

Pursuant to statutory requirements, this report is being provided to the Chairmen and Ranking Members of the House Transportation and Infrastructure Committee, the Senate Committee on Commerce, Science, and Transportation, the House Committee on Homeland Security, and the Senate Committee on Homeland Security and Governmental Affairs.

If I may be of further assistance, please do not hesitate to contact me or the TSA Office of Legislative Affairs at (571) 227-2717.

Sincerely yours,

Gale D. Rossides
Acting Administrator

Executive Summary

The Transportation Security Administration (TSA) is submitting this document in response to the congressional requirement for a comprehensive assessment of the risk of a terrorist attack on the Nation's rail transportation system, as required by Section 1511 of the *Implementing Recommendations of the 9/11 Commission Act of 2007* (9/11 Act), Public Law 110-53, August 2, 2007.

The purpose of this report is to describe the strategic level risks to the freight rail mode of transportation. It is important to understand that any analysis of risk in the Nation's railroad transportation system must be viewed in the context of the entire transportation sector. That context is provided by TSA's Transportation Sector Security Risk Assessment (TSSRA). The TSSRA is a comprehensive national risk assessment which provides the context in which to compare railroad risks with other modes of transportation in the sector. This modal risk assessment was prepared using the same methodology as the TSSRA.

The Rail Security Risk Assessment (RSRA) is an appraisal by TSA analysts of the risks facing the freight rail system. Freight railroads are a key link in the U.S. intermodal supply chain. To assess the risks of terrorism associated with the freight rail system, TSA drew on previous assessments and used a mix of qualitative and quantitative approaches consistent with DHS methodology and risk assessments for other modes of transportation.

Risks identified as areas of primary concern in the freight railroad transportation system are:

1. The transportation of certain cargoes, particularly toxic inhalation hazard (TIH) materials, through densely populated areas.

2. The vulnerability to attack of certain critical railroad infrastructure, (b)(3):49 U.S.C. § 114(r) (b)(3):49

The RSRA risk scores are not a part of this document but are contained in the freight rail section of the overarching TSSRA. However, composite risk scenario scores in the RSRA are estimated to be at the middle or lower end of what is projected to be the final scale for the transportation sector with threat being generally low, vulnerability ranging from moderate to high, and consequence being mostly low with a few specific scenarios being potentially high.

Included in this report is a National Strategy for Freight Railroad Security, also required by Congress in Section 1511 of the 9/11 Act. This strategy is found in the Conclusions and Recommendations section of this report. A more detailed explanation of the national strategy will be included in the upcoming update of the Freight Railroad Annex of the Transportation Systems Sector-Specific Plan.

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A. Legislative Language

In pertinent part, Section 1511 of the *Implementing Recommendations of the 9/11 Commission Act of 2007* (9/11 Act), Public Law 110-53, Title XV - Surface Transportation Security, Subtitle B—Railroad Security, includes the following requirements:

(a) RISK ASSESSMENT.—The Secretary shall establish a Federal task force, including the Transportation Security Administration and other agencies within the Department, the Department of Transportation, and other appropriate Federal agencies, to complete, within 6 months of the date of enactment of this Act, a nationwide risk assessment of a terrorist attack on railroad carriers. The assessment shall include—

(1) a methodology for conducting the risk assessment, including timelines, that addresses how the Department will work with the entities described in subsection (c) and make use of existing Federal expertise within the Department, the Department of Transportation, and other appropriate agencies;
(2) identification and evaluation of critical assets and infrastructure, including tunnels used by railroad carriers in high threat urban areas;
(3) identification of risks to those assets and infrastructure;
(4) identification of risks that are specific to the transportation of hazardous materials via railroad;
(5) identification of risks to passenger and cargo security, transportation infrastructure protection systems, operations, communications systems, and any other area identified by the assessment;
(6) an assessment of employee training and emergency response planning;
(7) an assessment of public and private operational recovery plans, taking into account the plans for the maritime sector required under section 70103 of title 46, United States Code, to expedite, to the maximum extent practicable, the return of an adversely affected railroad transportation system or facility to its normal performance level after a major terrorist attack or other security event on that system or facility; and
(8) an account of actions taken or planned by both public and private entities to address identified railroad security issues and an assessment of the effective integration of such actions.

(b) NATIONAL STRATEGY. --

(1) REQUIREMENT. —Not later than 9 months after the date of enactment of this Act and based upon the assessment conducted under subsection (a), the Secretary, consistent with and as required by section 114(t) of title 49, United States Code, shall develop and implement the modal plan for railroad transportation, entitled the ''National Strategy for Railroad Transportation Security.''

The Secretary of the Department of Homeland Security (DHS) delegated responsibility to the Transportation Security Administration (TSA) to complete a nationwide risk assessment examining the potential threat, vulnerabilities, and consequences of a terrorist attack on the Nation's freight rail system, as required by the 9/11 Act.

DHS also delegated responsibility to TSA to develop a national strategy for freight railroad transportation. The strategy included in this report in the conclusions and recommendations section is based on the freight rail security risk assessment. It is intended that the strategy contained in this report is complemented by the Freight Rail Annex of the Transportation System Sector Security Plan, as part of the National Infrastructure Protection Plan required by Homeland Security Presidential Directive 7 (HSPD-7).

B. Freight Rail Security Risk Assessment

1. Background

Description of Mode

The freight rail system in the United States is comprised of over 140,000 miles of active railroad track. A total of over 550 common carrier freight railroads use these tracks and originate over 35 million[1] carloads of raw materials and finished goods each year. Of the common carrier freight railroads, there are seven major interstate carriers (Class I) and the remaining carriers are classified as regional, short line, and terminal railroads (Class II & III).[2] These railroads employ over 186,000 persons and move more than 2.9 billion tons of material annually.

Freight railroads are also a key link in the U.S. intermodal supply chain. Over the past 10 years, intermodal traffic has been the fastest growing rail traffic segment. Today, there are 12 million intermodal rail shipments annually. An increasing number of the intermodal transfers from the maritime mode to freight rail are international movements.

Definition of Risk Assessment

At TSA, a risk assessment is a product or process that collects information and assigns values to risks for the purpose of informing priorities, developing or comparing courses of action, and informing decision making. It is an appraisal of the risks facing an entity, asset, network, geographic area, or other grouping. Here, for example, TSA analysts have produced a risk assessment outlining risks to the freight rail industry. The product is called the Rail Security Risk Assessment (RSRA).

Purpose

TSA determines risk by completing risk assessments, and then designs requirements to address those identified risks. From these requirements, TSA is able to develop a suite of potential solutions that includes, but is not limited to, industry action items, grants, regulations, and security countermeasures.

The purpose of this Rail Security Risk Assessment is to describe the strategic level risks to the freight railroad mode of transportation.

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[1] Association of American Railroads, Railroad Statistics, June 2009

[2] As used in this document, Class I, Class II, and Class III have the meanings assigned by regulations of the Surface Transportation Board (49 CFR part 1201; General Instructions 1-1).

II. Risk Assessment Methodology

To assess the risks of terrorism associated with freight rail, TSA used a mix of qualitative and quantitative approaches consistent with risk assessments for other transportation sectors.

For this Rail Security Risk Assessment (RSRA), TSA established a team of risk management and security experts within the freight rail transportation system. TSA used the specialized experiences and backgrounds of these risk experts, coupled with the results and findings from risk methodologies and assessments throughout DHS (such as the National Comparative Risk Assessment, Strategic Homeland Infrastructure Risk Assessment, and the ongoing Transportation Sector Security Risk Assessment), as well as published reports from the Government Accountability Office regarding risk management approaches.

TSA determined that a scenario-based approach was the most appropriate methodological tool to use for the RSRA. TSA applied the generally accepted risk management framework of Risk as a product of Threat, Vulnerability, and Consequence.

$$R = T \times V \times C$$

This framework provides a common definition and process to analyze the basic factors of risk, both to and from the entire transportation system.

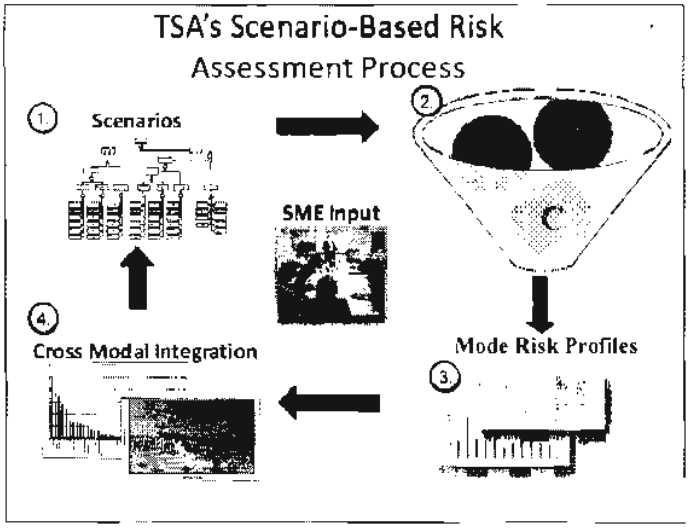

Figure 1: TSSRA Scenario-Based Risk Assessment Process

TSA used fault-tree analysis[3] to develop the scenarios. In an effort to avoid the 9/11 Commission's "failure of imagination" criticism, TSA initially identified over 100 possible combinations of infrastructure elements and terrorist attack methods. TSA used the Failure-Modes and Effects Analysis[4] method in conjunction with a survey/elicitation of subject matter experts (SMEs), and grouped the detailed set of 100-plus scenarios into approximately 10 plausible attack scenarios that were deemed reasonable and credible, and meriting further analysis for risk mitigation.

[3] Fault-tree analysis is an analytic process used to prevent or identify failures of process prior to their occurrence. The approach is widely accepted in professional analytic circles and has many well-known variations, including root cause analysis and attack tree analysis. The process asks experts to work through an event by repeatedly asking the question: "How could this happen?" A tree diagram is used to record the process.

[4] Failure modes and effects analysis (FMEA) is a widely used procedure for analysis of potential failure modes within a system for classification by severity or determination of the effect of failures on the system

In this assessment, Attack Scenarios are viewed from two primary perspectives:

(1) RISK *TO* THE TRANSPORTATION SYSTEM (Freight railroad as a Target)

(2) RISK *FROM* THE TRANSPORTATION SYSTEM (Freight railroad as a Weapon)

TSA's Office of Intelligence (OI) evaluated this set of scenarios for threat (T). TSA derived vulnerability (V) scores for the scenarios through a survey-based elicitation of the extensive interagency and private sector resources associated with freight railroad transportation. TSA derived consequence (C) scores from a combination of engineering studies and input from these subject matter experts.

In 2004, TSA initiated Rail Corridor Assessments (RCAs) as part of a Homeland Security Council tasking. RCAs involve a detailed review of freight rail operations focusing on the transportation of toxic inhalation hazard (TIH) materials through large cities known as High Threat Urban Areas (HTUAs).[5] The RCAs have developed into comprehensive reviews that incorporate assessments of emergency planning and response along with the input of attack planners to evaluate likely threat scenarios at specifically determined points along the assessed freight rail system. TSA conducted RCAs using the Freight Rail Hazard Analysis Tool, which TSA jointly developed in full cooperation with the freight rail industry.

TSA reviewed many of the existing industry practices to reduce risk in conducting the RSRA. Further, TSA has conducted comprehensive rail corridor risk assessments, in partnership with industry, State and local law enforcement, emergency management organizations, and elements of DHS and the Department of Transportation (DOT)[6] in 13 major metropolitan areas. The results of these assessments were used to inform the RSRA.

Additionally, TSA has hosted an ongoing forum to study and analyze potential threats against tank cars carrying chlorine, the most ubiquitous TIH substance carried in the railroad system. This forum includes members from the Naval Surface Warfare Center (Carderock Division), the Federal Bureau of Investigation (FBI), the Transportation Security Laboratory (DHS Science & Technology Directorate), the Federal Railroad Administration, the Pipeline and Hazardous Materials Safety Administration, as well as members of the academic community.

The railroad industry participants for the RSRA consisted of:

- The American Association of Railroads (AAR)
- Burlington Northern Santa Fe Railroad
- Norfolk Southern Railroad
- Union Pacific Railroad

[5] *High Threat Urban Area* means an area comprising one or more cities and surrounding areas including a 10-mile buffer zone, as listed in Appendix A to 49 CFR Part 1580.

[6] DOT participants in rail corridor assessments include the Federal Railroad Administration (FRA) and the Pipeline and Hazardous Materials Safety Administration (PHMSA).

III. Findings of the Risk Assessment

(U//FOUO) TSA-OI assesses with high confidence that the threat to the freight rail system from violent extremists, including al-Qa'ida, is low. Successful overseas attacks against freight rail and recent statements from al-Qa'ida senior leadership regarding striking U.S. interests, however, could inspire similar attacks in the United States.[7]

(b)(3):49 U.S.C. § 114(r)

The RSRA risk scores are not a part of this document but are contained in the freight rail section of the overarching TSSRA. TSA anticipates that in a comprehensive national transportation assessment. risk involving the Nation's freight railroad transportation system will he considered low to moderate relative to other transportation related attack scenarios. with the exception of a TIH release scenario which may score higher due to the relatively high potential consequence associated with this attack scenario.

Risk *TO* the Transportation System

The first set of scenarios considered involved direct attacks on the freight railroad system (risk to the railroad transportation system). These attack scenarios were grouped as follows: (b

(b)(3):49 U.S.C. § 114(r)

[7] (U), TSA Office of Intelligence. September 15, 2009, "(U) Freight Rail Threat Assessment"(U)

Risk *FROM* the Transportation System

The second set of scenarios involve using the freight rail system as a weapon (risk from the railroad transportation system). These attack scenarios were grouped as follows: (b)(3):49 U.S.C. § 114(r)

(b)(3):49 U.S.C. § 114(r)

Top attack scenarios generating risk *from* the Railroad Transportation System (b)(3):49 U.S.C. §

(b)(3):49 U.S.C. § 114(r)

(b)(3):49 U.S.C. § 114(r)

(b)(3):49 U.S.C. § 114(r)

RAILROAD ATTACK SCENARIOS

(b)(3):49 U.S.C. § 114(r)

Key Findings

Key initial findings, listed below, are derived from a review of the highest risk scenarios within the RSRA, in-depth analysis of the entire set of relevant RSRA scenarios, and additional input from subject matter experts.

(b)(3):49 U.S.C. § 114(r)

(b)(3):49 U.S.C. § 114(r)

(b)(3):49 U.S.C. § 114(r)

Further, conclusions such as the relative prioritization of risk and potential countermeasures in the railroad transportation system, compared to other parts of the national Transportation Sector are dependent on the outcomes of the comparative analysis in TSA's TSSRA.

C. National Strategy for Freight Railroad Transportation Security

The 9/11 Act, section 1511, mandates that the Secretary of Homeland Security develop and implement a "National Strategy for Railroad Transportation Security." The Secretary of Homeland Security delegated to TSA the responsibility for developing this strategy.

Based on the Railroad Security Risk Assessment (RSRA), the following strategy is offered to enhance resilience and reduce security risk within the Nation's freight railroad transportation system. This strategy is the framework for recommended action to manage identified risk. While the risks identified in the RSRA still exist, there has already been significant progress towards reducing these risks, most specifically the risk associated with the transportation of toxic inhalation hazard materials through densely populated urban areas. The RSRA provides a methodology that supports the development of a strategy that is focused and contains measurable objectives.

Strategic Security Goals and Objectives

In the 2010 Transportation Systems Sector-Specific Plan, DHS outlined four goals for the transportation sector which are consistent with the President's homeland security agenda, sector priorities, and the statutory imperatives for protecting the transportation system and improving resiliency of its critical infrastructure and networks. These goals shape the approach used to manage transportation sector specific risk:

I. Prevent and deter acts of terrorism using, or against, the transportation system.

II. Enhance the all-hazard preparedness and resilience of the global transportation system to safeguard U.S. national interests.

III. Improve the effective use of resources for transportation security.

IV. Improve sector situational awareness, understanding, and collaboration.

For the freight rail mode, the overarching strategic security goal has been to reduce the risk associated with the transportation of potentially dangerous cargoes by rail, and to increase the resiliency of the railroad network. The primary strategic objectives to achieve this goal are:

1. Reduce the vulnerability of rail cargo shipments and their potential to threaten the public and other critical infrastructure sectors.

2. Reduce the vulnerability of the railroad network, including critical operating infrastructure.

3. Reduce the consequences of attack on the railroad network or using the railroad network by enhancing the resilience of the railroad system.

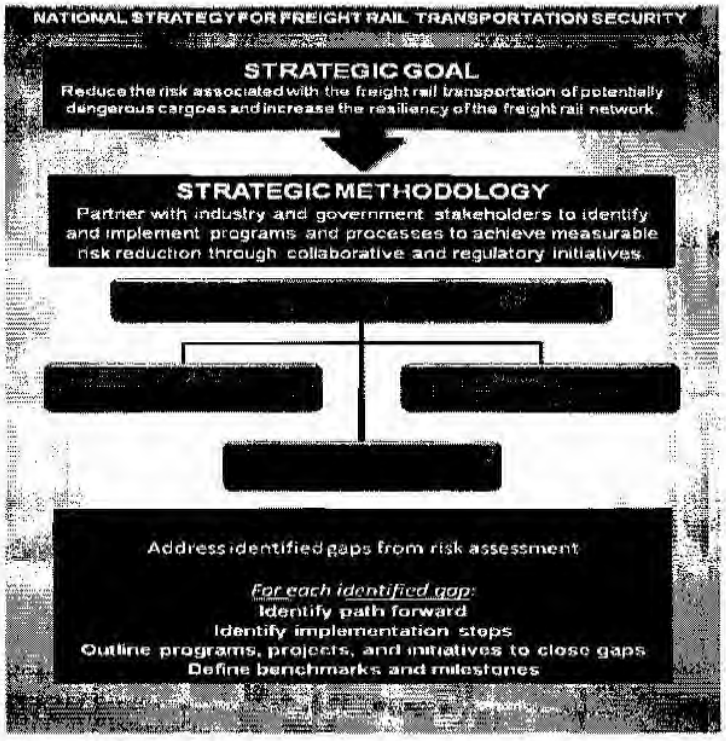

Figure 2: The National Strategy for Freight Rail Transportation Security

Reducing the vulnerability of cargo shipments means simply to make it more difficult for adversaries to use potentially dangerous cargoes against the public. As was noted in the RSRA, a potential risk exists that legitimate cargoes could be intentionally exploited during transportation, causing casualties in nearby populations, damaging infrastructure, and causing disruption in other transportation systems. By making it more difficult for an adversary to successfully use or target these cargoes and the conveyances that transport them; overall vulnerability can be reduced.

Reducing the vulnerability of the network means to enact processes, procedures, and protections that will reduce the likelihood of a successful attack on freight rail infrastructure. The direct consequences of an attack on a single location or feature of the freight rail network are not expected to result in widespread impact. (b)(3):49 U.S.C. § 114(r) (b)(3):49 U.S.C. § 114(r) (b)(3):49 U.S.C. § 114(r) Protection of critical infrastructure is one of the core programs of homeland security.

Enhancing the resilience of the freight transportation system by reducing the consequences of an attack is the third primary objective of the railroad transportation system. These actions range from preparing emergency responders to deal with the results (b)(3):49 U.S.C. § 114(r) (b) to ensuring that the owner/operators in the railroad system have business continuity and security plans (b)(3):49 U.S.C. § 114(r) (b)(3):49 U.S.C. § The reality that an attack may occur and be successful in its intent must be accounted for in preparation and planning initiatives.

To realize the strategic goal for freight rail security and its objectives, TSA will partner with industry and government stakeholders to identify and implement programs and processes to achieve measurable risk reduction through collaborative and regulatory initiatives.

The "National Strategy for Railroad Transportation Security" outlines the risk mitigating activities already taken and/or currently underway by TSA and its security partners and proposes new ways to address risks in the future. The strategy also includes focus areas where better knowledge and understanding is needed to improve the assessment of risk concerning the freight railroad transportation system.

Mission, Asset, and System Specific Risk Assessment (MASSRA) Activities

Mission, Asset, and System Specific Risk Assessments focus on one or more risk elements, or scenario-specific assessments, such as a blast effect analysis on a certain type of conveyance. Physical security self-assessments conducted by transportation service providers that estimate vulnerability also fall into the MASSRA category. These assessments generally do not cross jurisdictional lines and have a narrow, specific focus. They generally provide a detailed analysis of infrastructure vulnerabilities and can be used to determine which countermeasures should be used to mitigate risk. The following are a summary of MASSRA activities in the freight rail mode.

- **Compliance Inspections:** TSA and the Federal Railroad Administration (FRA) conduct periodic inspections to ensure compliance with federally-mandated security and security-related regulations. These regulations include TSA's Rail Transportation Security Rule (49 CFR Part 1580), which, in the freight rail context, requires railroads, rail hazardous materials shippers, and rail hazardous materials receivers in High Threat Urban Areas to implement chain of custody procedures to ensure the positive hand-off of rail security-sensitive material shipments.[10] The FRA enforces PHMSA requirements for security awareness training and security planning requirements (49 CFR 172.704, 172.802, and 172.820). When deficiencies that are potential system vulnerabilities are discovered, they are tracked and enforced via a mutually agreed upon corrective action plan and/or civil penalty actions.

- **Corporate Security Reviews (CSR):** The CSR program is an "instructive" review of a company's security plan and procedures, and it provides the government with a general understanding of each freight railroad's ability to protect its critical assets and its methods for protecting hazardous materials under its control. Teams from TSA analyze the railroad's security plan for sufficiency, determine the degree to which mitigation measures are implemented throughout the company, and recommend potential improvements. During the course of the CSR, the team may also conduct site visits of operations, including critical bridges, tunnels, operations centers, and yards. The company's critical asset list is also

[10] 49 CFR Part 1580 also requires these entities to appoint a rail security coordinator, provide location and shipping information for certain rail cars, and report significant security concerns to TSA. See 49 CFR 1580.101, 1580.103, and 1580.105.

discussed to gain an understanding of its "criticality" determination. Specific recommended mitigation strategies are tied to identified vulnerabilities and discussed with company officials.

- **Comprehensive Reviews:** Comprehensive Reviews are a DHS initiative that TSA and/or the United States Coast Guard (USCG) lead in the transportation sector as the respective sector-specific agencies. In the freight rail system, Comprehensive Reviews are conducted on specific rail corridors and critical railroad infrastructure. Comprehensive Reviews of rail corridors currently focus on assessing the vulnerabilities of high-population areas where TIH materials are moved by rail in significant quantities. Comprehensive Reviews of critical railroad bridges are planned for 2010 and a specialized assessment tool has been developed by TSA to facilitate and standardize the process. The reviews in the railroad system are conducted by teams comprised of subject matter experts from TSA, FRA, various organizations within DHS, the affected railroads, State and local homeland security officials, and local response and recovery organizations.

  These assessments aid DHS and the owner/operator in identifying security control points (areas of high consequence and vulnerability) at each location. The security control points/critical control points are reviewed using current threat scenarios, and mitigation strategies are then proposed. After completing the assessment, the team prepares a summary of each corridor and a freight rail hazard analysis. The assessments provide site-specific mitigation strategies and lessons learned, as well as tactics that can be modified for use at the corporate or national level.

- **TIH Material Rail Tank Car Risk Assessment Project:** TSA has participated in a multi-agency effort with the academic community and experts from various disciplines to conduct a series of in-depth examinations concerning the risks associated with a TIH release from a rail tank car in a densely populated area. The components of the assessment include the development of specific attack scenarios designed to achieve a TIH release in a populated area (including the types and amounts of explosives and weaponry placement on the tank car); an analysis using computer modeling and field validation testing to determine structural damage incurred based on attack scenario weapons used and the physical characteristics of standard DOT Specification 105J rail tank cars; an estimation of release rates from the breached tank car for emergency response and dispersion modeling purposes; an estimation of the characteristics of a TIH materials plume in a metropolitan environment; and a review of applicable dispersion models currently in use to identify deficiencies and recommend actions that will improve the accuracy of the current modeling tool set.

- **Site Assistance Visits (SAV):** DHS has completed SAVs on railroads and other sector infrastructure. The SAV is an information gathering visit. The visit is non-regulatory and is not an inspection. There is not a pass-fail grade. By definition, the SAV methodology is designed to facilitate the identification and documentation of critical infrastructure and key resources' (CI/KR) vulnerabilities, with discussion of mitigation strategies between

government and industry. They are tools that assist with the development of methods to both deter terrorist attacks and increase the survivability of these resources.

Communication and Information Sharing Activities

TSA regularly communicates with its stakeholders, implementing a variety of mechanisms to enhance its stakeholder relationships to effectively respond to issues, questions, or concerns regarding freight rail security. The stakeholders engaged include members of the railroad industry and shipper communities, as well as Federal, State, local, and tribal governments. TSA shares Open Source, For Official Use Only (FOUO), Law Enforcement Sensitive (LES), Sensitive Security Information (SSI), and Classified information where appropriate, and develops the content for and hosts pertinent, regular conference calls for internal and external stakeholders as needed. Meetings with the Government Coordinating Council (GCC) are also held every quarter. The Division also meets with State Homeland Security Advisors to discuss current programs, as well as to solicit feedback on ways to enhance freight rail security in their region.

- **Rail Security Coordinator (RSC) Network:** On November 26, 2008, TSA issued a final rule on rail transportation security (see 73 FR 72130) which included provisions for freight railroad carriers, rail security-sensitive material (RSSM) shippers, and RSSM receivers operating within an HTUA to appoint a primary, and at least one alternate, RSC.[11] RSCs are designated at the corporate level, and serve as the security liaison between their organization and TSA. RSCs serve as the primary point of contact for intelligence information and security-related activities and communications with TSA (24 hours a day, 7 days a week), and must coordinate security practices with appropriate law enforcement and emergency response agencies.

  Covered entities are required to submit to TSA the contact information of each of their RSC designees, including names, titles, telephone numbers, and e-mail addresses. As such, TSA has assembled a comprehensive database of stakeholder contact information to establish a network for information sharing with the industry.

  In the event that TSA needs to convey time-sensitive security information to a regulated party, the RSC Network is beneficial, particularly in situations requiring frequent information updates. The ability to communicate with specific individuals also allows for continuity. Individuals serving as RSCs are best suited to understand security problems, raise issues with corporate leadership, and recognize when emergency response action is appropriate.

  The RSC Network is intended to benefit both the industry and TSA. By creating channels of communication between the private sector and the Federal Government, security and threat information can be shared more effectively. Establishing these communication channels

[11] 49 CFR 1580.101.

provides TSA and the industry with a broader view of the risks facing the sector, and allows for appropriate steps to be taken to prevent, deter, and minimize the consequences of a potential terrorist attack. The RSC Network was created with the intent to foster information sharing and thereby enhance the security of the sector.

- **Homeland Security Information Network (HSIN):** The HSIN aims to share information in an integrated, secure web-based approach, as well as coordinate and collaborate with TSA's freight rail security partners in "real time." The FY 2010 launch of the Freight Rail portal is expected to create a user friendly tool to enhance information-sharing. The Freight Rail portal on HSIN endeavors to be a "one-stop" shop to all of the TSA's freight rail security partners. The portal is intended to be used as a way to provide consistent messaging on issues and topics related to freight rail security. TSA will continue to develop and identify content, and facilitate maintenance of the portal, in order to augment its information sharing capability with its stakeholders.

Risk Mitigation and Resilience Enhancement Activities

TSA and its partners in transportation security have developed numerous processes, tools, and programs to reduce the risk and enhance resilience in the freight rail sector. Details of these efforts are listed in the appendices of this Report. The following provides a summary of these activities.

Standards Development and Rulemaking:

TSA and the Department of Transportation (DOT) have worked with the railroad industry to develop both collaborative and regulatory initiatives that reduce the vulnerability of rail security-sensitive material shipments and increase the security of the freight rail network. Both agencies have developed new baseline standards for operational security and enacted regulations that require enhanced planning, training, and operational changes to reduce both security and safety risks.

- **Security Action Items:** TSA has, in conjunction with DOT and the Class I carriers, developed a program identifying a list of best practices called Security Action Items (SAI). An initial list of 24 SAIs was issued as voluntary security guidelines for the transportation of TIH materials, and was distributed to rail carriers and Federal partners in June 2006. These SAIs addressed three general areas: system security, access control, and en route security. In November 2006, TSA issued three additional voluntary SAIs which directly addressed issues

(b)(3):49 U.S.C. § 114(r)

(b)(3):49 U.S.C. § 114(r)

- **Hazardous Materials Regulations:** In 2003, the Pipeline and Hazardous Materials Administration (PHMSA) added provisions to the Federal hazardous materials regulations (68 FR 14509 (March 25, 2003) (49 CFR Parts 100-185)) that require carriers of hazardous materials, including freight railroads, to: 1) provide security awareness training to employees; and 2) develop and implement security plans that address the assessment of security risks for shipments of hazardous materials; personnel security; unauthorized access; and en route security.[13] FRA is responsible for the enforcement of these regulations.

- **TSA Rulemaking:** On November 26, 2008, TSA issued a final rule on rail transportation security covering (in pertinent part) freight railroad carriers, shippers of RSSM, and receivers of RSSM located within an HTUA.[14] The rule establishes procedures for positive chain of custody while RSSM cars are in transportation. The rule also defined the term "rail security-sensitive materials," the transportation of which requires freight railroad carriers, RSSM shippers, and RSSM receivers located in an HTUA to carry out the chain of custody and control security measures established in the rule. RSSM is defined to mean one or more of the categories and quantities of the following materials:

  (1) A rail car containing more than 2,268 kg (5,000 lbs) of a Division 1.1, 1.2, or 1.3 (explosive) material, as defined in 49 CFR 173.50;

  (2) A tank car containing a material poisonous by inhalation as defined in 49 CFR 171.8, including anhydrous ammonia, Division 2.3 gases poisonous by inhalation as set forth in 49 CFR 173.115(c), and Division 6.1 liquids meeting the defining criteria in 49 CFR 173.132(a)(1)(iii) and assigned to hazard zone A or hazard zone B in accordance with 49 CFR 173.133(a), excluding residue quantities of these materials; and

  (3) A rail car containing a highway route-controlled quantity of a Class 7 (radioactive) material, as defined in 49 CFR 173.403.

  Further, the rule requires the appointment of Rail Security Coordinators, the reporting of location and shipping information of RSSM rail cars, and the reporting of significant security concerns to TSA.

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[13] DHS & DOT. *Recommended Security Action Items for the Rail Transportation of Toxic Inhalation Hazard Materials.* Washington, D.C. November 21, 2006.

[14] When PHMSA adopted its security regulations, shippers and freight railroad carriers were informed that those regulations were "the first step in what may be a series of rulemakings to address the security of hazardous materials shipments." 68 FR at 14511. PHMSA also noted "TSA is developing regulations that are likely to impose additional requirements beyond those established in [that] final rule," and stated it would "consult and coordinate with TSA concerning security-related hazardous materials transportation regulations * * *" 68 FR at 14511.

[14] 73 FR 72130-72180.

TSA's surface inspector workforce is the primary mechanism by which the agency monitors industry compliance with the chain of custody provisions.

- **PHMSA Rulemaking:** On the same day TSA issued the final rule on rail transportation security, PHMSA issued a final rule (see 73 FR 72182) designed to enhance rail transportation safety and security of shipments of hazardous materials by requiring that railroads use routes with the fewest overall safety and security risks to transport security-sensitive hazardous materials. The rule requires rail carriers to analyze safety and security risks along rail routes where certain quantities of TIH, explosive, and high-level radioactive materials are transported, assess alternative routing options, and select the practicable routes that pose the least overall risk to safety and security. The PHMSA rule also clarifies rail carriers' responsibility to address within their security plan issues related to en route storage and delays in transit. Rail carriers are also required to inspect placarded hazardous materials rail cars for signs of tampering, or the presence of suspicious items, including improvised explosive devices.

  Beginning July 1, 2008, rail carriers began to compile data on specified shipments of hazardous materials and routes currently used. Railroads were required to use the six months of data they collected between July and December for their initial risk assessments. Thereafter railroads must collect this data annually. Railroads must use the data to analyze safety and security risks along routes where those materials are transported, assess alternative routing options, and make routing decisions based on those assessments.

  The safety/security risk analysis must consider at minimum the 27 Rail Risk Analysis Factors listed in Appendix D to 49 CFR Part 172 that may affect the possibility of a catastrophic release along a specific route, including factors such as the volume of the commodity transported; the total distance traversed; track attributes; population density; the environmental characteristics of the area surrounding the route; and any prior history of incidents or risk mitigation measures for the route, among others.

  In addition to the routes normally and regularly used for hazardous materials movements, the rail carriers must analyze and assess the safety and security of all available alternative routes over which they have authority to operate. Railroads also have to consider the use of interchange agreements with other railroads when determining practicable alternative routes and the potential economic effect of using an alternative route.

  Using the results of the route analyses and risk mitigation measures that will be implemented, a rail carrier is required to select the routes posing the least overall safety and security risk.

  DHS provided funding to the Railroad Research Foundation, a not-for-profit foundation under the Association of American Railroads, to develop a routing model that a railroad can use in complying with the rule. Railroads are free to choose other routing models in preparing their analyses.

The rulemaking also included provisions to the security plan requirements. The rule requires that railroad security plans must include: (1) a procedure for consulting with offerors and consignees to minimize the time a material is stored incidental to movement; (2) measures to limit access to the materials during storage and delays in transit; (3) measures to mitigate risk to population centers during storage incidental to transportation; (4) measures to be taken in the event of an escalating threat level during storage incidental to transportation; and (5) a procedure for notifying the consignee in the event of transportation delays.

- **TSA Rulemaking in Development**

  Enhanced security training standards for frontline railroad employees: Section 1517 of the 9/11 Act directs the Secretary of Homeland Security to develop and issue regulations for a training program to prepare railroad frontline employees for potential security threats and conditions.

  Railroad Carrier Assessments and Plans: Section 1512 of the 9/11 Act requires the promulgation of a regulation that will provide guidance and standards to be utilized in the conduct of vulnerability assessments and the subsequent development of security plans.

Compliance and Benchmarking Activities

- **TSA Toxic Inhalation Hazard (TIH) Risk Reduction Project:** The freight rail vulnerability assessments have led to the implementation of a TIH Risk Reduction Project. The Project objectives focus on loaded and unattended toxic inhalation hazard material rail cars in HTUAs. The original risk reduction goal for this project was a 50 percent reduction in the risk associated with TIH rail shipments within HTUAs by the end of calendar year 2008. This goal was exceeded with a recorded reduction in risk of over 59 percent. In 2009, there was a cumulative risk reduction of over 82 percent as compared against the baseline year (see Table 3 below). The risk reduction was achieved because of the voluntary actions of the rail carriers and their customers' collaborative efforts, without regulation.

- **Security Action Item Implementation Surveys:** In September 2006, TSA initiated surveys to objectively measure the level of industry implementation of seven field-critical action items from the first 24 SAIs. The seven security items that were assessed and measured had been selected due to their direct impact on transportation security and because they are most directly tied to practices and procedures applied in the field rather than at the corporate level.[15] These surveys were not compliance inspections, but rather assessments to determine the depth and degree of employee security awareness and security action item implementation. During the course of the visit, inspectors observe conditions in the facility

[15] DHS, TSA, TSNM, Freight Rail Security Division. *Freight Rail Transportation of Toxic Inhalation Hazard Materials. Security Action Item Implementation Survey Summary Report 2006.* Washington, D.C. 2006. p. 1

and interview first line employees to determine the level of implementation. TSA Inspectors initially visited railroad yards and terminals in each of the 46 HTUAs from September to December 2006, conducting assessments of over 150 individual railroad facilities and interviewing over 2,600 employees.[16]

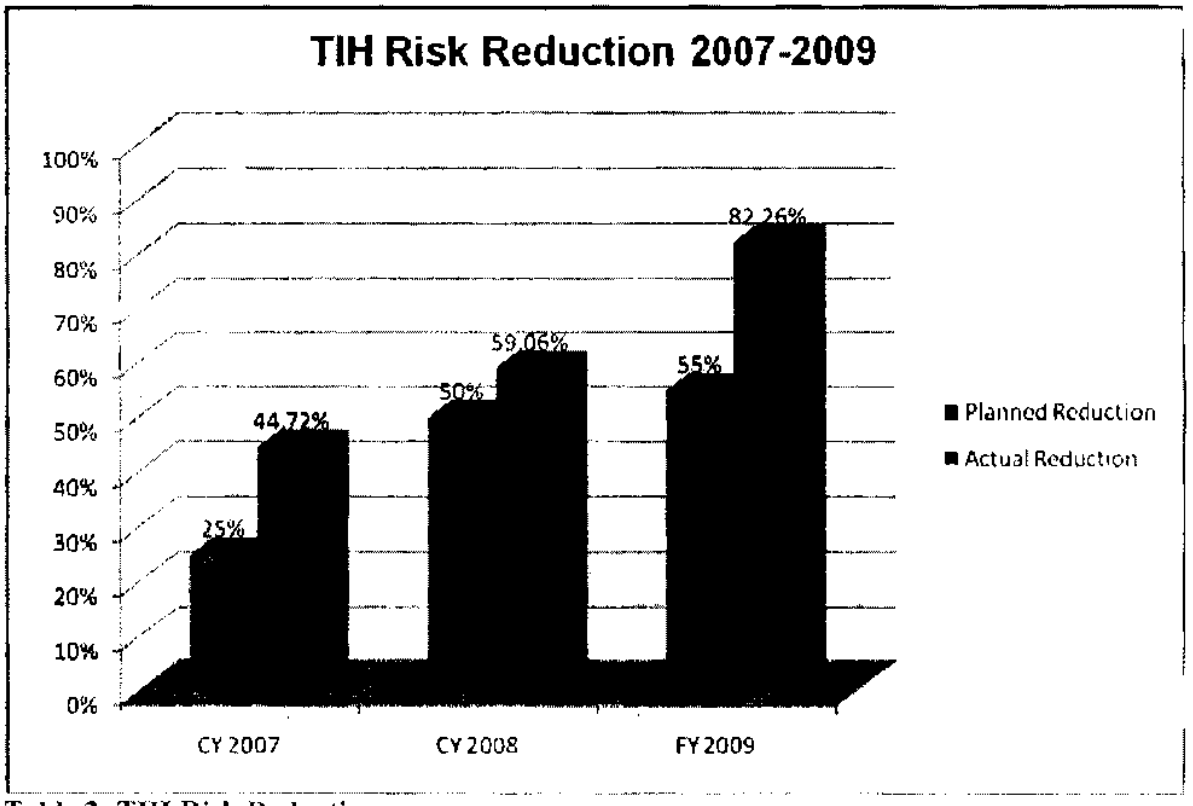

Table 3: TIH Risk Reduction

Preparedness Activities

- **Intermodal Security Training & Exercise Program (I-STEP):** I-STEP is the primary Federal vehicle for facilitating security exercises in the Railroad Transportation System. TSA developed I-STEP in an effort to enhance the preparedness and resilience in the transportation network. I-STEP exercises conducted in railroad transportation system facilitate discussions regarding the information sharing processes and coordination between the Federal Government and the freight rail industry, particularly during heightened states of alert. TSA has analyzed the diverse characteristics of the freight rail system to provide the right combination of tools and exercise services to address these variations.

[16] Ibid.

Grant Programs

- **Freight Rail Security Grant Program (FRSGP):** In FY 2009, the FRSGP funded security training for frontline employees, the completion of vulnerability assessments, the development of security plans within the freight rail industry, and the installation of GPS tracking systems for railroad cars transporting TIH materials. Eligible applicants are divided into groups based on the types of projects they can apply for: Class I, II and III railroad carriers can apply for training and security plan development. Owners, or lessees of railroad cars transporting TIH can apply for tracking device installation. The total FRSGP funding available in FY 2009 was $15,000,000. In FY 2010 available funding is $15,000,000 and eligible programs include the installation of tracking devices on TIH tank cars, employee security training, and security enhancements for critical bridges.

- **Buffer Zone Protection Program (BZPP):** The BZPP, administered by DHS, provides funding to increase the preparedness and resilience capabilities of jurisdictions responsible for the safety and security of communities surrounding designated high-priority critical infrastructure and key resources, including chemical facilities, financial institutions, nuclear and electric power plants, dams, stadiums and other high-risk/high-consequence facilities, through allowable planning and equipment acquisition. Specific BZPP sites within 49 States, the District of Columbia, and the U.S. Virgin Islands have been selected based on their level of risk and criticality. Railroad systems have qualified for BZPP funding in the past and may qualify for future funding. The total BZPP funding available in FY 2009 was $48,575,000.

Research Projects Related to TIH Rail Transportation:
There are several projects aimed at improving the resistance of rail cars to attack and accidents associated with the transport of TIH materials, as well as to understand the impact of a tank car quantity release of a TIH material. These projects include:

- **Advanced Tank Car Collaborative Research Program (ATCCRP)** - Railroad, shipper, and tank car builder groups, with support from TSA, FRA, and Transport Canada and the DHS Science & Technology Directorate (S&T), have collaborated on tank car safety and security research to reduce potential public safety and security risks associated with the transportation of TIH materials. Those groups, represented by the Association of American Railroads, the American Chemistry Council, the Chlorine Institute, The Fertilizer Institute, and the Railway Supply Institute, agreed to work together on an Advanced Tank Car Collaborative Research Program to promote improvements in rail tank car safety and security. The focus is on the transportation by rail of TIH materials. The ATCCRP is working to identify and characterize promising tank car design concepts and technologies that can be successfully used by tank car builders to achieve significant risk reductions in rail tank car safety and security. This research initiative intends to reduce or eliminate the likelihood of a release of a TIH material from a rail tank car due to an accident or security breach.

- **TSA's Tank Car Vulnerability Assessment Project** - TSA is funding a tank car vulnerability assessment project to better understand the weapons that would likely be used against a TIH tank car and their likely impact on the TIH tank car. With support from a team of experts from DHS, FBI, and DOD, the weapon threats against the TIH tank car were identified, defined, and prioritized. The DHS Transportation Security Lab and the Naval Surface Warfare Center (NSWC) conducted an engineering analysis of the weapon's impact on the TIH tank car, which is being followed up with actual tank car weapons impact testing at the Aberdeen Proving Grounds.

- **Understanding Large-Scale Toxic Chemical Transport Releases** – The DHS S&T Chemical Security Analysis Center (CSAC) has been tasked with investigating knowledge and capability gaps that were identified by TSA, in the prediction of the impact and behavior of large-scale TIH material releases. For large scale releases of tank car quantities of TIH materials, there is knowledge lacking pertaining to cloud formation, liquid pooling, vaporization rate, the effects of buildings and terrain as well as other factors that are needed to make a proper evaluation and impact prediction. Deficiencies were brought to light after the large scale TIH material releases from rail car accidents in Graniteville, South Carolina (2005) and Macdona, Texas (2004) where the released TIH cloud behavior did not match with accepted scientific predictions. Efforts to better understand large TIH releases include conducting a scientific literature gap analysis, a toxicity analysis, and laboratory, wind tunnel and small scale field tests. Release testing of approximately one-ton quantities of chlorine and anhydrous ammonia is planned for the spring of 2010 at the Dugway Proving Grounds, Utah. The DHS CSAC has acknowledged that large scale release testing will be required to adequately complete this project.

- **Tank Car Hardening Project (aka "Dragon Shield")** – TSA was involved in a government-industry working group consisting of representatives from FRA, the Association of American Railroads, the Railway Supply Institute, the American Chemistry Council, the Chlorine Institute, and NSWC Indian Head to examine methods to harden tank cars by (b)(3):49 U.S.C. § 114(r). FRA provided funding for this project. (b)(3):49 U.S.C. § 114(r) tests of a series of chlorine tank car plates covered with materials submitted by vendor companies throughout the United States were conducted at NSWC Dahlgren. The test results provided some promising results with additional testing needed. This project is complete.

- **Next Generation Rail Tank Car Project** – The Dow Chemical Company, in partnership with the Union Tank Car Company and the Union Pacific Railroad, are developing a "Next Generation" rail tank car that will better withstand the destructive forces a tank car may see in a violent train derailment. TSA, through a Memorandum of Cooperation with the Dow Chemical Company, is working to incorporate technologies that can provide protection against high-caliber firearms. DOD components at NSWC Indian Head and NSWC Carderock are providing technical assistance in the development of the Next Generation Tank Car as it relates to protection (b)(3):49 U.S.C. § 114(r).

- **DHS S&T Rapid Response and Recovery Project** – In August 2008, DHS S&T signed a Technology Transition Agreement (TTA) with the DHS Office of Infrastructure Protection (IP) and TSA to develop technologies and methodologies that will reduce or eliminate the release of TIH materials from rail tank cars and stationary tanks, with potential approaches to include sealing and puncture resistant technologies. This work will continue, in part, with the work initiated in the Tank Car Hardening Project (aka "Dragon Shield"). TSA intends to work closely with DHS S&T on this project in determining ways TIH material rail tank car manufacturers can provide protection against some of the expected weapon threats to the rail tank car. Funding is anticipated from FY 2009 through FY 2014.

Metrics for Continuous Improvement

- **TIH Risk Reduction Program:** In 2007, TSA began assessing the potential vulnerabilities and consequences posed by TIH rail cars in major cities by gathering, monitoring, and quantifying risk information associated with TIH rail shipments traveling through 46 HTUAs. The assessment program was developed to measure the progress Federal and industry efforts are having in reducing the risk associated with the transportation of TIH in major cities. TSA collects and uses both historical and current information on the number of TIH rail shipments in each HTUA, security at rail yards holding TIH shipments in each HTUA, and the population of each of these cities. Specifically, TSA compiles information for four factors:

    - **Total hours TIH cars were present inside an HTUA.** TSA collects data from the rail industry's automated systems that record the movement and location of all rail cars within the U.S. rail system by means of electronic identification tags. TSA uses this data to quantify the amount of time TIH rail cars are located within a city.
    - **Unattended hours of loaded TIH cars inside an HTUA.** TSA collects this information through visits conducted by TSA inspectors.
    - **Population proximity to unattended TIH cars.** TSA uses U.S. Census Bureau data to determine the population within a one-mile radius of each TIH car that was sitting unattended and to rank each city's possible exposure based on this information.
    - **City ranking.** TSA prioritizes the cities' importance on a scale of 1 to 5 (5 being the highest) using a logarithmic factor based on the population of each city.

    TSA also developed a formula, based on the information collected, to quantify a risk score for each city. The risk score is a relative measure, or indictor, of the TIH security risks within a city for a given time period. Historical information for these risk factors was gathered from June 1, 2005, to May 31, 2006. This information was used to establish a baseline risk score for each of the 46 HTUAs as a means of comparison to the information for the current year.

As of December 2008, TSA determined that there was over a 59 percent national reduction in risk since the end of the baseline period. This achievement surpassed the original goal of a 50 percent risk reduction by the end of 2008. At the end of FY 2009, the measured risk had been reduced by 82 percent in comparison to the baseline year. The information TSA has collected gives the agency a way to closely compare the vulnerabilities and consequences related to TIH transportation across various cities over time. The development of national risk scorecards, which ranks each city by risk score, also allows the agency to monitor which cities or railroads have high-risk scores, and to focus further assessment and security efforts on these cities or railroads.

Continued risk reductions will require maintaining the reductions already achieved. This will be accomplished by leveraging surface transportation security inspectors to continue field verification of risk reduction methods, as well as setting a path for achievement of additional reductions in future years. Indeed, the benefits derived from the TIH Risk Reduction Program have been so valued that the Office of Management and Budget has designated the program as a Program Assessment Rating Tool (PART), and tasked TSA with continuing the program through the end of calendar year 2013. As such, TSA will continue to measure the ongoing risk associated with the movement of TIH shipments within the same 46 HTUAs. However, rather than continuing to compare the ongoing risk against the original baseline, each year will be compared to the prior year, with the goal of a 10 percent risk reduction over the previous year.

The Chain of Custody provisions (*see* 49 CFR 1580.107) of the November 2008 Rail Transportation Security Rule also require regulated entities to ensure a positive and secure exchange of shipments of rail security-sensitive materials, including TIH. Requiring covered parties to establish chain of custody and control procedures will further reduce the risk of TIH rail transportation in HTUAs.

- **Transportation Risk Reduction Matrix:** To measure the fundamental aspects of security, the following metrics have been established for the freight rail sector. Measurement of these metrics by TSA commenced in FY 2010. Corporate Security Reviews of railroads will serve as the primary method for gathering the necessary data. The measurement results will be prepared on an annual basis and will be shared with industry stakeholders and the Freight Rail Sector Coordinating Council to foster an environment of continuing excellence in risk reduction and resilience enhancement through planning, training, and execution.
  - Vulnerability Assessments – percentage of railroad carriers completing vulnerability assessments that include the identification of critical assets and analysis of asset vulnerabilities
  - Security Plans – percentage of railroad carriers that have system security plans in place that at a minimum meet the requirements of 49 CFR 172.802 and address specific security countermeasures for critical asset protection at elevated alert levels

- Vetting of Employees – percentage of frontline railroad employees that have been vetted through the use of a security threat assessment (for example, issuance of a TWIC)
- Training of Employees – percentage of employees that have been trained in security awareness in accordance with 49 CFR 172.704 and in the procedures for the identification and recognition of IEDs in the railroad environment
- Drills and Exercises – percentage of railroads that have participated in a security focused exercise within the past 12 months
- Security Awareness percentage of railroads that have active employee security awareness programs
- Screening of cargo
- Technology Applications
- Secure Critical Infrastructure

Appendices

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Appendix A: Research Projects Related to TIH Rail Transportation

TSA is currently supporting several projects aimed at gaining a better understanding of the mechanisms and consequences associated with attacks on rail tank cars that transport TIH materials. These projects include:

- **TIH Material (Chlorine) Tank Car Consequence Analysis/Validation**

Project Overview – The project will identify a scientific and computer-based methodology supported by industry, government, and the academic community that can be used to predict the behavior of a catastrophic release of TIH materials like chlorine and anhydrous ammonia after an attack on a 90 ton DOT Spec 105J500W tank car in a densely populated urban area. Chlorine is a Zone B TIH material.

For large scale releases of tank car quantities of TIH materials like chlorine, DHS and the dispersion modeling community lack critical dense gas release knowledge relating to cloud formation, liquid pooling, vaporization rate, the effects of buildings and terrain as well as other factors needed to make a proper evaluation and impact prediction. Deficiencies were brought to light after large scale TIH material releases in Graniteville, South Carolina (2005) and Macdona, Texas (2004), where the released chemical cloud behavior did not match with accepted scientific predictions.

Problem Solution - To solve this problem, TSA has partnered with the DHS S&T Chemical Security Analysis Center (CSAC) to investigate knowledge and capability gaps in the prediction of the impact and behavior of large-scale TIH material releases. Part of the problem is that there have been so very few large scale dense gas release experiments; scientists working with DHS have suggested that the thermodynamic cloud behavior of small releases and large release are very different, particularly as it relates to the amount of liquid TIH that vaporizes as a function of time. It is the amount of material that vaporizes from a liquid to a gas and then travels with the wind that is critical in determining the downwind concentrations and impact to populations. Efforts presently underway to better understand large TIH releases include conducting a scientific literature gap analysis, a toxicity analysis, and laboratory, wind tunnel and small scale field tests.

Project Goal - The goal of the project is for large scale TIH material tank car releases, with a focus on chlorine as the primary objective and a secondary focus on anhydrous ammonia, to provide DHS S&T with the capability to describe the near field effects (b)(3):49 U.S.C. § 114(r) The project will take into account specific initial release conditions and, with the knowledge of the near field, be able to accurately predict the near field and far field effects of the released TIH material.

Key Task Areas - Understanding Catastrophic Release Chlorine Cloud Formation - Source Term Analysis and Development - The objective of this task is to investigate and develop ways

to improve the accuracy of source term data used as input for modeling of large-scale TIH releases. The source term describes all of the physical and interactive behavior of a pressurized gas released from containment, as well as the release environment. Differences between small and large releases related to:

- Phase composition of cloud
- Effect of chlorine temperature and superheat
- Pooling of released material
- Effect of impingement of flashing jet as chlorine is released from container
- Air mixing and heat to evaporate released chlorine droplets
- Effects of barriers and buildings
- Composition (vapor versus liquid droplets) and duration of chlorine cloud
- Distribution and behavior of aerosol droplets
- Effect of gravity versus wind on chlorine cloud
- Depletion of chlorine cloud due to localized reactions
- Understand toxicity of chlorine

Relationship to the 9/11 Act – Section 1519(b) of the 9/11 Act requires DHS to conduct an air dispersion modeling analysis of release scenarios of TIH materials resulting from a terrorist attack on a loaded railroad tank car.

Project Status – This project is ongoing. A project team has conducted gap analysis and determined areas in present modeling capabilities that could be the cause of significant discrepancies between modeled and accidental releases. This was done through hundreds of hours of study, discussions, and through an extensive literature search. DHS S&T has funded a study of tank car accidents where large amounts of TIH materials were released, such as in Macdona, Texas, in 2004 and Graniteville, South Carolina, in 2005. This information will be used to conduct dispersion modeling analysis and validate dispersion modeling results. DHS S&T has provided FY 2009, 2010 and 2011 funding for the project. This is in addition to funds being provided by TSA. In addition, TSA will coordinate its efforts with the Defense Threat Reduction Agency (DTRA) who have parallel interests in this area. Release tests of representative quantities of chlorine and anhydrous ammonia are planned for the spring of 2010 at the Dugway Proving Grounds, Utah, using funds made available through the 9/11 Act.

- **TIH Material Rail Tank Car Threat Assessment**

Project Overview: The purpose of this project is to identify, define, and prioritize threats and threat scenarios for TIH material rail tank cars, to evaluate the likely methods of attack an adversary would use to breach a TIH material tank car, and to define the types and amounts of explosives and weaponry placement on the tank car. The results of this project allow for the evaluation of the tank car's vulnerability (b)(3):49 U.S.C. § 114(r)

TSA led a technical team to conduct the tank car threat analysis consisting of representatives from the following organizations:

- TSA Freight Rail Division
- TSA Explosive Division
- NSWC Carderock Division
- Federal Bureau of Investigation
- U.S. DOT PHMSA
- TSA Office of Intelligence
- DHS S&T, Transportation Security Laboratory
- DHS Office of Intelligence & Analysis

The technical team determined the five weapons most likely to be used in an attack on a tank car containing TIH material. The exact amounts of materials and the method of delivery are contained in the classified report that was prepared at the conclusion of the project. The report provides information on the expected efficacy of each weapon type and the limitations of each.

Relationship to 9/11 Act – Section 1519(a) of the 9/11 Act requires DHS to assess the likely methods of a deliberate terrorist attack against a railroad tank car used to transport TIH materials, and for each method assessed, the degree to which it may be successful in causing death, injury, or serious adverse effects to human health, the environment, critical infrastructure, national security, the national economy, and public welfare. In complying with this requirement, DHS is to consider the most current threat information as to the likely methods of a successful terrorist attack on a railroad tank car transporting TIH materials.

Project Status – This project is complete.

- TIH Material Rail Tank Car Vulnerability

Project Overview – The purpose of this project is to better understand and quantify the vulnerability of tank cars used to transport TIH materials to likely terrorist attacks methods. Objectives of this project include:

- Assisting in the development of rail security vulnerability reduction measures
- Estimating release rate from the breached tank car for emergency response and dispersion modeling purposes

Tank Car Vulnerability Assessment Project – TSA has initiated a project to assess the vulnerability of the DOT Specification 105J TIH material tank car to the weapon threats identified in the TIH Material Tank Car Threat Assessment Project. The project will analyze the level of likely structural damage incurred and hole size generated by each weapon type through computer modeling backed by field validation testing. Technical participants include TSA Freight Rail Division, TSA Explosive Division, NSWC Carderock Division and FBI Weapon of Mass Destruction and Explosive Group.

Next Generation Rail Tank Car Project – The Dow Chemical Company, in partnership with the Union Tank Car Company and the Union Pacific Railroad, are developing a "Next Generation" rail tank car that will better withstand the destructive forces a tank car may see in a violent train derailment. TSA, through a Memorandum of Cooperation with the Dow Chemical Company, is working to incorporate technologies that can provide protection against high-caliber firearms. DOD components at NSWC Indian Head and NSWC Carderock are providing technical assistance in the development of the Next Generation Tank Car (b)(3):49 U.S.C. § 114(r)

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DHS S&T Rapid Response and Recovery Project – In August 2008, DHS S&T signed a Technology Transition Agreement (TTA) with the DHS IP and TSA to develop technologies and methodologies that will reduce or eliminate the release of TIH materials from rail tank cars and stationary tanks, with potential approaches to include sealing and puncture resistant technologies. This work will continue, in part, with the work initiated in the Tank Car Hardening Project (aka "Dragon Shield"). TSA intends to work closely with DHS S&T on this project in determining ways TIH material rail tank car manufacturers can provide

protection against some of the expected weapon threats to the rail tank car. Funding is anticipated from FY 2009 through FY 2014.

Advanced Tank Car Collaborative Research Program (ATCCRP) - Railroad, shipper and tank car builder groups, with support from TSA, FRA, and Transport Canada and the DHS S&T, have collaborated on tank car safety and security research to reduce potential public safety and security risks associated with the transportation of TIH materials. Those groups, represented by the Association of American Railroads, the American Chemistry Council, the Chlorine Institute, The Fertilizer Institute, and the Railway Supply Institute, agree to work together on an Advanced Tank Car Collaborative Research Program to promote improvements in rail tank car safety and security. The focus is on the transportation by rail of TIH materials. The ATCCRP is working to identify and characterize promising tank car design concepts and technologies that can be successfully used by tank car builders to achieve significant risk reductions in rail tank car safety and security. This research initiative intends to reduce or eliminate the likelihood of a release of a TIH material from a rail tank car due to an accident or security breach.

Relationship to the 9/11 Act – The above referenced projects also address the requirements of Section 1519(a)(3) of the 9/11 Act.

Appendix B: Current Industry Best Practices for Railroad Security

The Association of American Railroads developed the *Terrorism Risk Analysis Security Management Plan* in April 2003 as a result of the terrorist attacks of September 11, 2001, and as a proactive measure in collaboration with DHS in addressing perceived security vulnerabilities within the freight rail system. The AAR created five critical action teams, each for a specific area of concern within the rail industry:

- Hazardous Materials – focused on hazardous materials and chemicals, their suppliers and users, methods of transport and possible risks and countermeasures
- Operational Security – focused on the life cycle of a train and vulnerabilities/countermeasures to railroad operations
- Physical Infrastructure – focused on assimilating lists of critical infrastructure, countermeasures to threats, and alert level actions
- Military Liaison – focused on coordinating with the Strategic Rail Corridor Network (STRACNET) on the efficient operation of military rail network, and countermeasures to terrorist threats
- Information Technology and Communications – focused on command and control of rail shipments, data systems and tracking of shipments, and key personnel and contractors[17]

Furthermore, the AAR plan provides an overall framework for industry-wide security measures while leaving the actual implementation up to the individual railroads. Carriers utilized the plan as a guidance document to create security management plans for their respective carrier company addressing their identification of critical infrastructure and other security concerns. TSA reviewed these particular plans for the Class I carriers as part of the TSA Corporate Security Review process.

The AAR developed rating criteria for the vulnerability of key assets and the impact upon the rail system. This was completed should a particular asset be disabled by a terrorist attack. These rankings were rated as: low, medium, high, and critical. A critical impact was defined as the loss of that asset severely degrading or stopping rail operations for an indefinite period of time.

Overall, the AAR identified 1,300 assets within the rail system. While the AAR did consider both issues of direct business relevance and national level of importance in identifying each asset, their primary concern was the direct business impact of each asset. Of these 1,300 assets, a much smaller number were identified as being "critical" in their impact rating. This list of critical assets has been used to drive specific countermeasures to target improvements where necessary.[18]

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[17] Browder, William M. Association of American Railroads (2005), *Freight Rail Security Briefing* [PowerPoint slides]. Retrieved from UC Berkeley Web site: http://www.techtransfer.berkeley.edu/railroad05downloads/BROWDER.pdf, slides 13-26.
[18] Ibid, slide 17.

As part of the *Terrorism Risk Analysis Security Management Plan*, the AAR developed a four stage alert plan which lays out progressively higher levels of action to be taken in the event of certain security situations. It details actions to be taken in the areas of security personnel, operations, and information technology and communications. The levels are:

Level 1 – "Normal Day to Day Operations"
Level 2 – "Heightened Security Awareness"
Level 3 – "A Credible Threat of an Attack on the US or Railroad Industry"
Level 4 – "A Confirmed Threat of Attack Against the US Railroad Industry or Actual Attack in the US"[19]

To effectively deal with the potential threat, the AAR established a series of countermeasures that are laid out in detail in the plan. These covered three areas which are as follows:

- "People" countermeasures – covered areas such as employee security training, training of emergency response teams, and placement of key personnel
- "Process" countermeasures – established the AAR Operations Center and the Railway Alert Network (RAN). Staffed 24 hours a day, the AAR Operations Center is a Department of Defense cleared facility that works in conjunction with the Surface Transportation Information Sharing and Analysis Center (ST-ISAC) to ensure appropriate collection, analysis, and sharing of security-related information. The RAN links the Operations Center with the industry to pass on sensitive information and alert levels to the railroads, law enforcement agencies, major shippers, and the short line railroads. It operates 24 hours a day and utilizes mobile communications at lower threat levels, but is physically manned at alert levels 3 and 4
- "Technology" countermeasures – focused on various aspects of establishing secure communications[20]

Railroad carriers have also adopted and implemented the list of 24 Security Action Items issued in June 2006, as well as the three supplemental SAIs issued in November 2006. The industry has used the SAIs to increase employee awareness and institute operational processes to reduce the risk associated with the transportation of TIH through High Threat Urban Areas. Accordingly, the railroads' adoption of the action items into practice allowed for the successful achievement of the goal of a 50 percent risk reduction from TIH in transportation by the end of 2008.

[19] Ibid, slide 33.
[20] Ibid, slide 27.

Appendix C: Security Action Items

- **Recommended Security Action Items for the Rail Transportation of Toxic Inhalation Hazard Materials**

This document contains recommended security action items for the rail transportation of materials poisonous by inhalation, commonly referred to as Toxic Inhalation Hazard (TIH)[21] materials. Adoption of these measures is voluntary. Movement of large quantities of TIH materials by rail in proximity to population centers warrants special consideration and attention. These materials have the potential of causing significant numbers of fatalities and injuries if intentionally released in an urban environment.

The efficient operation of our critical interstate rail system requires a uniform nationwide approach to railroad security. The security action items listed in this document have been identified by the Department of Homeland Security (DHS) and the Department of Transportation (DOT) during risk assessments and security reviews and build upon existing DOT hazardous materials regulations. In particular the DOT regulations at 49 CFR Sections 172.704 and 172.800-804 require each transporter of hazardous materials, including TIH materials, to develop and implement security plans and to train appropriate employees in security measures. DHS and DOT are issuing these voluntary action items as measures that should be considered when security plans are developed, implemented, and revised. The action items are voluntary to allow the railroad carriers to adopt measures best suited to their particular circumstances provided the measures are consistent with existing regulations. It is not our intent that these security action items be enacted into law by state and local governments. Existing federal regulations likely would preempt any such law.

The security action items have been divided into three categories 1) system security; 2) access control; and 3) en-route security. System security and access control refer to practices affecting the security of the railroad and its property. En-route security refers to the actual movement and handling of railcars containing TIH materials.

DHS and DOT recognize that no one solution fits all locations and circumstances. These security action items allow for flexibility in implementation based upon the assessed vulnerability of a particular process or operation. Where applicable, implementation of these action items to their fullest extent practicable should be the goal of the affected property owner and operator.

DHS and DOT reserve the right to update or modify these security action items as circumstances warrant.

[21] Under the Hazardous Materials Regulations (49 CFR 171-180), TIH materials are gases or liquids that are known or presumed on the basis of tests to be so toxic to humans as to pose a hazard to health in the event of a release during transportation. See 49 CFR 171.8, 173.115, and 173.132.

System Security Practices Affecting the Transportation of TIH Materials

1. Designate an individual with overall responsibility for hazardous materials transportation security planning, training, and implementation. This individual should report directly to an executive officer of the company. Designate an individual with overall responsibility for security planning and countermeasure implementation for company-designated critical infrastructure.

2. Conduct exercises, at least annually, to verify the effectiveness of security plan(s).

3. Develop and conduct an internal or external company audit program to independently verify that the security plan is being effectively implemented. The audit process should include a policy for record keeping of the audit and a method for management review and performance measurement.

4. Identify and then annually review company-designated critical infrastructure. Ensure that changes or additions to the operating environment have been properly addressed.

5. Maintain a communications network to receive timely government notices of current threat conditions and available intelligence information. Adjust security measures as necessary to reflect current threats and vulnerabilities based on available information.

6. Make use of opportunities to establish liaison and regular communication with federal, state, and local law enforcement, emergency responders, security agencies, and industry partners. Strive to make local law enforcement aware of railroad security issues.

7. Establish liaison and collaboration with other railroad security offices to promote information sharing and security enhancements.

8. As with industry safety programs, regularly reinforce security awareness and operational security concepts to all employees at all levels of the organization.

9. Reinforce the need for employees to immediately report to the proper authorities all suspicious persons, activities, or objects encountered.

10. Have contingency plans in place to supplement company security personnel to protect company-designated critical infrastructure as threat conditions warrant such as contracts to engage private security guard providers or procedures to request supplemental physical security assistance of federal, state, local, and tribal authorities.

11. Restrict access to information controlled by the railroad that it determines to be sensitive, in particular information about hazardous materials shipments and security measures.

12. Make available emergency response planning materials, and when requested, work with local communities to facilitate their training and preparation to deploy and respond to an emergency or security incident.

13. Cooperatively work with the federal, state, local, and tribal governments to identify through risk assessments those locations where security risks are the highest. Cooperatively work with the federal, state, local, and tribal governments to identify and implement protective measures at these locations.

Access Control Security Practices

14. Focus proactive community safety and security outreach and trespasser abatement programs in areas adjacent to company-designated critical infrastructure to reduce the likelihood of unauthorized individuals on company property and to enhance public awareness of the importance of reporting suspicious activity.

15. To the extent feasible and practicable, utilize photo identification procedures for company-designated critical infrastructure. Establish procedures for background checks and safety and security training for contractor employees with unmonitored access to company-designated critical infrastructure.

16. To the extent feasible and practicable, and as threat conditions warrant, restrict the access of contractors and visitors at non-public areas of company-designated critical infrastructure and monitor the activities of visitors in or around such infrastructure.

17. Establish employee identification measures for all employees. Conduct spot checks of identification as threat conditions warrant.

18. Implement measures to deter unauthorized entry and increase the probability of detection at company-designated critical infrastructure as threat conditions warrant. To the extent patrols are utilized, vary the pattern and schedule to avoid predictability.

19. Utilize interlocking signals and/or operating rules to prevent trains from occupying moveable bridges until they are locked in place.

En-route Security Practices

20. Maintain systems to locate rail cars transporting TIH materials in a timely manner to enable the implementation of security measures when necessary and provide information on the location of rail cars carrying TIH materials to DHS and DOT, as requested, in case of events of national significance.

21. During required on-ground safety inspections of cars containing TIH materials, inspect for any apparent signs of tampering, sabotage, attached explosives, and other suggested items. Train employees to recognize suspicious activity and report security concerns found during inspections.

22. Provide local authorities with information on the hazardous materials transported through their communities consistent with AAR Circular OT-55.

23. Consider alternative routes when they are economically practicable and result in reduced overall safety and security risks. Work with the DHS and DOT in developing better software tools to analyze routes.

24. In rail yards, to the extent feasible, place cars containing TIH materials where the most practical protection can be provided against tampering and outside interference when appropriate for the threat level in the geographic area in accordance with the AAR Security Management Plan.

- **Supplement No. 1, Issued November 21, 2006**

This document contains recommended security action items for the rail transportation of materials poisonous by inhalation, commonly referred to as Toxic Inhalation Hazard (TIH) materials. Adoption of these measures is voluntary. Movement of large quantities of TIH materials by rail in proximity to population centers warrants special consideration and attention. These materials have the potential of causing significant numbers of fatalities and injuries if intentionally released in an urban environment.

The supplemental security action items contained in this document are the result of cooperative work between government and industry to craft meaningful and executable actions that will provide for the reduction in the security risk associated with the rail transportation of TIH materials. These action items are an addition to the original 24 action items that were issued on June 23, 2006.

The three action items contained herein represent the next step in enhancing the security of rail shipments of TIH. These three items especially item number 1, the provision calling for the preparation of site-specific plans for high threat urban areas build upon rather than replace the original 24 action items.

I. Introduction

The Department of Homeland Security and the Department of Transportation are concerned about the risk posed by the transportation by rail of bulk Toxic Inhalation Hazard materials (TIH) in High Threat Urban Areas. Our intention is to work with the freight rail industry to develop and implement security initiatives that will measurably reduce the risk and enhance the security of bulk Toxic Inhalation Hazards moved by rail in High Threat Urban Areas (HTUA). DHS and DOT have identified four areas to be addressed:

- The establishment of secure storage areas for rail cars carrying Toxic Inhalation Hazard (TIH) materials;
- The expedited movement of trains transporting rail cars carrying TIH materials;
- The positive and secure handoff of TIH rail cars at points of carrier interchange and at points of origination and delivery; and,
- The minimization of unattended loaded tank cars carrying TIH materials

II. Risk Definition

All railroad freight carriers operating in High Threat Urban Areas will develop annexes to their security plans that are site specific to that High Threat Urban Area as defined by the Department of Homeland Security Urban Area Security Initiative (UASI) geographic areas.

The security plans will be risk-based and will include metrics that reflect population density and the amount of TIH materials transported by rail and the length of time that these shipments are in High Threat Urban Areas. The plans will be classified appropriately to protect sensitive information.

TSA will provide the rail carriers with a list of urban areas previously identified.

The goal of this initiative is to measurably reduce the risk of the transportation by rail of bulk TIH materials through high threat urban areas. Railroads will strive to reduce risk by 25 percent in the first year. TSA will work with the railroads on goals for succeeding years. Risk will be defined as a function of population density, number of TIH shipments, and the length of time TIH cars are unattended[22] and unsecured.

III. Data Base

The risk reduction will be measured by the time TIH cars are held in yards, terminals, on railroad-controlled leased tracks and the time that TIH trains are stopped or standing within a HTUA. Railroads will strive to provide TSA baseline data within 60 days.

IV. Action Plans to Reduce Risk

Supplemental Security Action Item No. 1

Rail carriers with operations in High Threat Urban Areas (HTUA) will develop site-specific security plans that address the security of the transportation in bulk of TIH material in loaded rail cars ("TIH cars") in HTUA. The site-specific security plan should include specific and detailed measures to enhance the security of TIH cars in the carrier's custody. These plans should be completed within 90 days of the issuance date of the guidelines.

The site-security plan will address the following objectives for railroad operations within the HTUA:

1) Reduce the number of hours TIH cars are held in yards, terminals, and on railroad-controlled leased track in HTUA.

2) Minimize the occurrence of unattended* TIH cars in HTUA.

[22] Unattended Cars for the purpose of this document are those rail cars that are in a train or on railroad-controlled leads or tracks with no crew on board, no personnel active in the area, or no electronic monitoring. "Personnel" includes railroad employees or agents, law enforcement officers, private security guards, and rail customer employees.

3) Reduce potential exposure to surrounding people, property and environment in HTUA. Special emphasis should be placed on reducing potential exposure to hospitals, high-occupancy buildings, schools, and public venues.

4) Reduce the occurrence of standing TIH trains in HTUA.

5) Provide a procedure for the protection or surveillance of unattended TIH trains in HTUA

6) Ensure compliance with CFR 49 Part 174.14 (48 hour rule).

7) Develop site-specific procedures for the positive and secure handoff of TIH cars at points of origin, destination, and interchange in high threat urban areas.

Supplemental Security Action Item No. 2

Rail carriers will not operate trains carrying TIH within a specified distance of public venues with National Special Security Events in progress and as requested by the appropriate agency responsible for overall event security coordination.

Supplemental Security Action Item No. 3

Rail carriers will, in the security planning process, identify and select areas throughout the carrier's system where cars containing TIH can be moved and held when threat conditions warrant. Risk and exposure to the general public are factors to be considered in the selection process. The rail carrier will provide this information to the government upon request.

V. Verification

The Transportation Security Administration and the Federal Railroad Administration will work cooperatively to evaluate the degree of implementation of these security action items through data analysis and inspection, and may take appropriate actions to encourage carriers to achieve risk reduction.

- **Supplement No. 2, Issued February 12, 2007**

I. Introduction

The Department of Homeland Security (DHS) and the Department of Transportation (DOT) are concerned about the risk posed the transportation by rail of bulk TIH materials in High Threat Urban Areas. Our intention is to work with the freight rail industry to develop and implement security initiatives that will measurably reduce the risk and enhance the security of bulk Toxic Inhalation Hazards moved by rail in High Threat Urban Areas. On June 23, 2006, under Access Control Security Practices, paragraph 15, we recommended that the industry:

> 15. . . . Establish procedures for background checks . . . for contractor employees with unmonitored access to company-designated critical infrastructure.

This document provides specific recommendations on such background checks. These recommendations do not alter, limit, or conflict with State or Federal statutory protections,[23] or regulations, orders, and directives of DHS, DOT or any other the governmental agency.

II. Criminal History Checks

Many stakeholders may use criminal background checks to assess the suitability of their employees for positions. To the extent that a stakeholder chooses to do so for employees with unmonitored access to company-designated critical infrastructure, they should consider using the federally established list of disqualifying crimes applicable to hazmat drivers and transportation workers at ports (see 49 CFR 1572.103).[24]

A. Redress Procedures

The industry should consider establishing a vigorous internal redress process for adversely affected applicants and personnel, including an appeal and waiver process similar to the system established for hazmat drivers and transportation workers at ports (see 49 CFR part 1515).

An appeal process would be designed to provide an applicant or personnel with the opportunity to show that he or she does not have a disqualifying conviction, by correcting outdated underlying court records or proving mistaken identity.

A waiver process would be designed to provide an applicant or personnel with the opportunity to be hired or continue employment by demonstrating rehabilitation or facts surrounding a conviction that mitigate security concerns. The industry should consider permitting an applicant or personnel to submit information pertaining to any of the following:

1. Circumstances of the disqualifying offense;
2. Restitution made;
3. Letters of reference from clergy, employers, probation/parole officers; and
4. Other factors the individual believes bear on his or her good character.

The industry may elect to incorporate the redress process into the disciplinary procedures already used by railroads as part of its management/labor relations.

III. Social Security Number Verification

In addition, the industry should consider using the Social Security Number Verification System (SSNVS) that the Social Security Administration (SSA) makes available to all employers. Employers can verify that current employee names and social security numbers

[23] For instance, employee protections codified at 49 U.S.C. 20109 that prohibit discrimination or retaliation of rail employees who file a complaint against a railroad or refuse to work due to hazardous conditions remain in full force and effect.
[24] See 72 FR 3492 (January 25, 2007), as corrected by 72 FR 5632 (February 7, 2007)

match the SSA's records, which reduces the likelihood that an individual who has adopted a false identity and difficult to thoroughly vet is part of the workforce.

IV. Immigration Status

The industry should also consider using the Systematic Alien Verification for Entitlements (SAVE) database to determine a non-citizen's immigration status. SAVE is an intergovernmental information-sharing service for agencies and employers to use to ensure that an applicant has lawful presence in the United States. SAVE is nationally accessible and contains selected immigration status information on approximately 50 million individual non-citizens.[25]

[25] For information on accessing SAVE, contact: Director, SAVE Program, USCIS SAVE Program, Douglas Development Building, 2nd Floor, 20 Massachusetts Ave., NW, Washington, DC 20529.

~~SENSITIVE SECURITY INFORMATION~~

Transportation Sector Security Risk Assessment

March 2010

Homeland Security

Transportation Security Administration

Message from the Acting Administrator

On behalf of the Transportation Security Administration (TSA), I am pleased to present the Transportation Sector Security Risk Assessment (TSSRA). This report is in response to a directive in Senate Report 110–396 of the 2009 DHS Appropriations Bill (Public Law 110-396/Division D) and re-emphasized in Senate Report 111-31 of the 2010 DHS Appropriations Bill (Public Law 111-83). It provides a comprehensive risk assessment of the transportation sector.

The Secretary of the Department of Homeland Security (DHS) delegated to TSA the responsibility to complete a nationwide risk assessment examining the potential threat, vulnerabilities, and consequences of a terrorist attack involving the Nation's transportation system.

TSA completed this risk assessment in conjunction with other DHS entities, Federal partners, and industry members. TSA consulted with a wide range of government and private-sector stakeholders in preparing this report.

This report is intended to appropriately inform resource allocation decisions and is part of TSA's response to key findings and recommendations contained in GAO-09-492 (March 2009), *"Comprehensive Risk Assessments and Stronger Internal Controls Needed to Help Inform TSA Resource Allocation."* At the convenience of the Committee, TSA is prepared to discuss how risk informs the TSA resource allocation process in general and, in particular, the FY11 President's Budget Request for Transportation Security.

This document is marked as Sensitive Security Information and special handling procedures apply to its storage and transmission.

Pursuant to congressional requirements, this report is being provided to the following Members of Congress:

The Honorable David E. Price
Chairman, House Appropriations Subcommittee on Homeland Security

The Honorable Harold Rogers
Ranking Member, House Appropriations Subcommittee on Homeland Security

The Honorable Robert Byrd
Chairman, Senate Appropriations Subcommittee on Homeland Security

The Honorable George V. Voinovich
Ranking Member, Senate Appropriations Subcommittee on Homeland Security

Inquiries relating to this report may be directed to me at (571) 227-(b)(6) or to the Department's Acting Chief Financial Officer, Peggy Sherry, at (b)(6)

Sincerely yours,

Gale D. Rossides
Acting Administrator
Transportation Security Administration

Executive Summary

The purpose of this report is to provide a comprehensive view and comparative analysis of terrorist risk involving fives modes of transportation: aviation, freight rail, highway, mass transit, and pipeline.[1]

The Transportation Sector Security Risk Assessment (TSSRA) is designed to inform the development or maintenance of risk mitigation strategies and actions that include, but are not limited to, the development of security standards, grants, programs, countermeasures, and resource allocations. It provides a cross-modal analysis as well as individual analyses focused on the unique risks in each transportation mode.

This assessment provides DHS and congressional decision makers with a baseline understanding of the risk landscape facing the transportation sector. It is a snapshot report reflecting a particular moment in time. Key assumptions and certain limitations were recognized; TSA plans refinements to the TSSRA process in the future.

Figure 1 shows the distribution of total risk (the combination of threat, vulnerability, and consequences) by mode.

Figure 1: Percentage of Total Risk by Mode of Transportation

[1] It was a joint decision by the U.S. Coast Guard (USCG) and TSA to not include maritime transportation security risk in this report. The USCG is the lead Federal agency for maritime transportation security and uses the Maritime Security Risk Analysis Model (MSRAM) to assess maritime risk. TSSRA and MSRAM employ different analytic approaches, which prevents any meaningful cross-modal comparative analysis. The USCG's annual report to Congress titled Threat of Terrorism to U.S. Ports and Vessels is a comprehensive risk assessment of maritime security and provides a similar analysis of maritime transportation as TSSRA does for the other transportation modes.

Key findings and observations:

(b)(3):49 U.S.C. § 114(r)

Areas for further discussion and analysis:

(b)(3):49 U.S.C. § 114(r)

(b)(3):49 U.S.C. § 114(r)

In the future, TSSRA may be used to:

- Inform security priorities and resource allocation decisions.
- Supplement mission-specific assessments to inform policy decisions for enhancing security.
- Inform research and development (R&D) strategies, in particular exploring new explosive detection and biological detection technologies.
- Continue to enhance and strengthen security and awareness training for security-sensitive employees and vendors through grants and regulations required by the 9/11 Act.
- Augment current allocation models and application criteria for grant programs.

The baseline findings and observations in the TSSRA are the foundation for development and implementation of risk management strategies that will lead to better risk mitigation and resource allocation decisions by U.S. decision makers and key industry stakeholders.

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A. Legislative Requirement

This report fulfills requirements from the 2009 and 2010 Department of Homeland Security Appropriations Bills (Public Law 110-396/Division D and Public Law 111-83).

The specific language is contained in the Senate Report 110–396 of the 2009 DHS Appropriations bill (Public Law 110-396/Division D) and Senate Report 111-31 of the 2010 DHS Appropriations bill (Public Law 111-83):

> *The Committee recognizes that the Secretary is to develop, consistent with the transportation modal security plans required under section 114(t) of title 49, United States Code, risk-based priorities based on risk assessments conducted or received by the Secretary across all transportation modes that consider threats, vulnerabilities, and consequences. The Committee directs the Secretary to submit a report, no later than 60 days after the date of enactment of this act, that includes: copies of the risk assessments for each transportation mode; a summary that ranks the risks within and across modes; and a description of the risk-based priorities for securing the transportation sector that identifies and prioritizes the greatest security needs of the transportation sector, both across and within modes, in the order that they should be addressed. This report should also describe the underlying methodologies used to assess risks across and within each transportation mode and the basis for any assumptions regarding threats, vulnerabilities, and consequences made in assessing and prioritizing risks within and across modes. The report shall be submitted in classified or unclassified formats, as appropriate. The Committee further directs the Secretary to submit, concurrent with the fiscal year 2010 budget request, supporting documentation that explicitly explains how the comprehensive risk assessments for all transportation modes were used to allocate resources across and within each mode. This documentation should also identify the corresponding allocation of resources being proposed in the budget request (by appropriations account, program, project, and activity) that address these priorities. This annual submission shall be made in classified or unclassified formats, as appropriate.*

B. Methodology

I. Overview

For this Transportation Sector Security Risk Assessment (TSSRA) to assess the risks of terrorism associated with the Nation's transportation system, TSA used a mix of qualitative and quantitative approaches consistent with accepted practice for security risk assessments.

TSA initially established a team of risk management and security experts within the national transportation system to develop the TSSRA methodology. TSA used the specialized experiences and backgrounds of these risk experts, coupled with the results and findings from risk methodologies and assessments throughout DHS and published reports from the Government Accountability Office.[2]

Determining that a scenario-based approach was the most appropriate methodological tool to use for the TSSRA, TSA applied the generally accepted terrorism risk analysis framework of risk as a product of threat, vulnerability, and consequence ***(R = T x V x C)***.

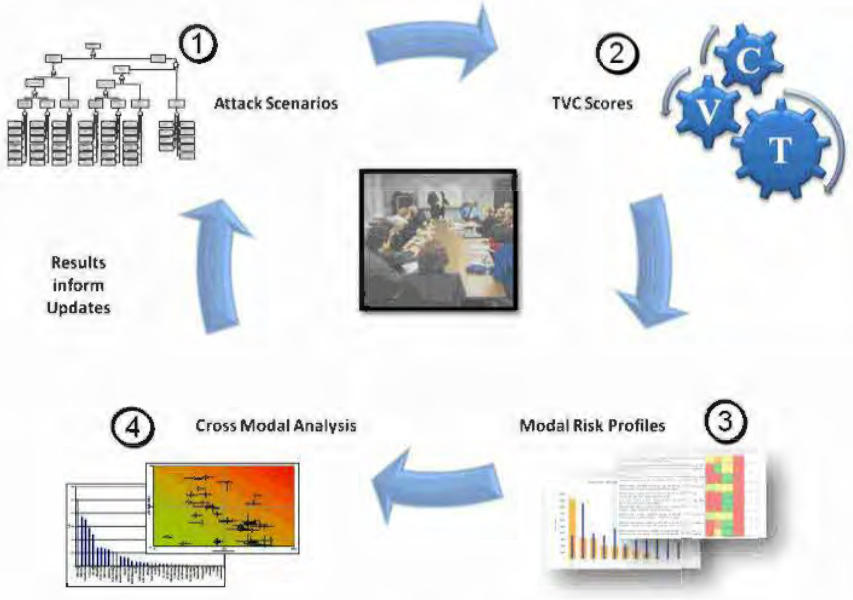

Figure 2: TSSRA Scenario-Based Risk Assessment Process

Also found in the National Infrastructure Protection Plan (NIPP),[3] this framework provides a common definition and process to analyze the basic factors of risk, both to and from the entire transportation system. Further details on the risk methodology used in TSSRA may be found in the appendices.

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[2] For example, the National Comparative Risk Assessment, the Strategic Homeland Infrastructure Risk Assessment, the School Bus Security Risk Assessment, the Commercial Trucking Security Risk Assessment, and the Rail Security Risk Assessment.

[3] 2009 National Infrastructure Protection Plan (NIPP), Chapter 3, section 3.3, page 33-34.

In order to enhance understanding of the enormous amount of risk information collected for all transportation modes, the TSSRA methodology is structured with the ability to view risk data from two analytical perspectives: attack scenarios and attack families. An "attack scenario" is a plausible combination of an asset (e.g., aircraft, train car), an attack method (e.g., IED, VBIED), and a target (e.g., building, bridge). An "attack family" is a grouping of attack scenarios that share similar properties. This allows for a direct comparison of risk values between modes and provides a strategic overview across all transportation modes.

TSA used fault-tree analysis[4] to develop attack scenarios. In an effort to avoid the 9/11 Commission's "failure of imagination" criticism, several thousand possible combinations of infrastructure elements and terrorist attack methods were initially identified. Using the Failure-Modes and Effects Analysis[5] method in conjunction with a survey/elicitation of subject matter experts (SMEs), this exhaustive set of scenarios was narrowed to approximately (b)(3):4 plausible attack scenarios that were deemed reasonable and credible. These attack scenarios were organized by similar attack methodologies; they were then grouped into (b)(3):4 attack families.

Grouping risk assessments by attack families allows decision makers to understand the scope of transportation risk presented in this report. Taken together, both attack families and attack scenarios provide useful insights for decision makers when considering countermeasures.

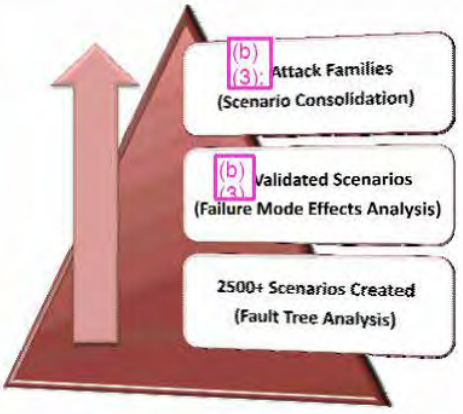

Figure 3: Attack Scenario Development

[4] Fault-tree analysis is an analytic process used to prevent or identify failures of process prior to their occurrence. The approach is widely accepted in professional analytic circles and has many well-known variations, including root cause analysis and attack tree analysis. The process requires experts to trace a path through an event by repeatedly asking the question: "how could this happen?" A tree diagram is used to record the process.

[5] Failure modes and effects analysis (FMEA) is a widely used procedure for analysis of potential failure modes within a system for classification by severity or determination of the effect of failures on the system.

II. Risk Equation and Variables

TSSRA employs the generally accepted and widely applied risk equation (EQ 1 below) that estimates Risk as the product of Threat, Vulnerability, and Consequences.

(EQ 1) (R)isk = (T)hreat x (V)ulnerability x (C)onsequence

Table 1 provides an example of how the risk score is calculated for a scenario.

Scenario (Example Only)	T	V	C ($B)	R
(b)(3):49 U.S.C. § 114(r)	.0154	x .0525	x 76.1 =	61.53

Table 1: Risk Calculation Example

For this assessment, all three risk variables were combined into risk scores for each of (b)(3): attack scenarios; they were further grouped and prioritized into (b)(3):4 attack families used for a risk comparison across the entire transportation sector.

Threat (T)

Threat is defined in TSSRA as the likelihood that an attacker will attempt a particular attack scenario given the intent and capability of the attacker. Intent is defined as the likelihood that an adversary will choose a given attack scenario once committed to an attack. Capability is defined as the likelihood that an adversary will have the resources and skills to undertake a given attack scenario within a defined timeframe.

(EQ2) (T)hreat =

Estimates for capability and intent were derived by TSA intelligence analysts using an intelligence-based adversary intent and capability scoring method or rubric. For the Aviation mode, the estimates were also validated by aviation SMEs from the intelligence community (IC).[6]

Vulnerability (V)

Vulnerability is defined in TSSRA as the likelihood that an adversary will successfully defeat current countermeasures given that the attack is attempted. Vulnerability addresses the probability that an attacker successfully eluded law enforcement and counterterrorism forces, the

[6] TSA's aviation threat estimates were reviewed by aviation analysts from key IC agencies, including the Department of Homeland Security, Defense Intelligence Agency, Department of Transportation, Drug Enforcement Administration, Federal Bureau of Investigation, National Counterterrorism Center, Office of the Director of National Intelligence, and the United States Air Force.

probability the attacker defeated both passive and active defenses associated with the asset and attack type, as well as the difficulty associated with a particular target and/or attack combination.

(EQ3) (V)ulnerability = ∫{Countermeasure Effectiveness (CM), Degree of Difficulty (DD)}

To ensure a degree of consistency with the vulnerability estimates, a modified Kent Scale[7] was used to standardize the set of probabilities.

If the probability of a component (active, passive, target) within the defensive systems failing for the given scenario is:	Then the best estimate is:	With an uncertainty (give or take) of:
Certain	0.99	0
Almost Certain	0.93	0.06
Probable	0.75	0.11
Chances About Even	0.5	0.14
Probably Not	0.25	0.11
Almost Certainly Not	0.07	0.06
Impossible	0.01	0

Table 2: Modified Kent Scale Used to Estimate Vulnerability

Consequence (C)

Consequence is defined in TSSRA as the monetized value of direct and indirect economic and human impacts associated with a successful attack. The Consequence estimates were developed from a combination of economic research analysis (which included a study of the impacts of 9/11) and an SME elicitation process. Consequence estimates include monetized deaths and injuries.

The TSSRA also includes estimated indirect economic costs such as cascading economic effects at local, regional, and national levels. These estimates help to illuminate the impact on supply chains, inventory levels, loss of revenue, and consumer behaviors that affect supply and demand.

Consequence estimates also incorporate the influence of response (the ability to contain the damage and limit the consequences), recovery (the degree to which the target can be restored and over what time and at what cost), and resilience (the degree to which the system could absorb the attack).

(EQ4) (C)onsequence = ∫{Human Cost, Direct Cost, Indirect Cost}

[7] The Kent Scale was developed by CIA senior analyst Sherman Kent in 1962 to provide a standard taxonomy of words to assign a certainty (or uncertainty) level to intelligence warnings.

III. Process

TSSRA started with the definition of a "universal adversary" as al-Qaida-like: determined, moderately-to-highly skilled, well-financed, and capable of planning and executing a relatively complex terrorist attack.

STEP 1. ***The TSSRA methodology began with a comprehensive review of applicable risk, security, and transportation information***, including other risk assessments throughout DHS and the Federal government. These assessments provided best practice examples, validation, and bounding models for TSSRA. Additionally, a "universal," al-Qaida-like adversary was used as the terrorist model.

STEP 2. ***The next step was the development of attack scenarios through the use of fault-tree analysis***. In an effort to avoid the 9-11 Commission's "failure of imagination" criticism, thousands of possible combinations of targets and terrorist attack methods were initially identified. Scenarios were also viewed from two primary perspectives:

(1) **RISK *TO* THE TRANSPORTATION SYSTEM**

(2) **RISK *FROM* THE TRANSPORTATION SYSTEM**

STEP 3. Using the Failure-Modes and Effects Analysis method in conjunction with the survey and/or elicitation of subject matter experts (SMEs), the ***initial set of scenarios was narrowed to the most plausible attacks*** deemed reasonable and credible. This step resulted in (b) (3) plausuble attack scenarios across all modes of transportation.

STEP 4. Additional detail was added to the (b) (3):4 plausable attack scenarios by further considering the possible set of transportation assets, attacks, and targets per mode during facilitated sessions comprised of modal SMEs from both the public and private sectors. During these facilitated sessions, ***each of the*** (b) ***attack scenarios was also assigned a Vulnerability (V) value between 0.01 and 0.99.*** Vulnerability is defined in TSSRA as the likelihood that an adversary will successfully defeat current countermeasures given that the attack is attempted The Kent Scale, which consists of common phrases that are transformed into bracketed quantitative scores, was used during the elicitation process to determine the vulnerability scores. The facilitation assisted the SMEs to focus on a single phrase describing the target's vulnerability to a specific attack scenario.

STEP 5. Threat is defined in TSSRA as the likelihood that an attacker will attempt a particular attack scenario given the intent and capability of the attacker. ***TSA evaluated each of the*** (b) ***attack scenarios for Threat (T) based on scenario Capability and Intent.*** TSA intelligence analysts considered historical trends of

incidents and suspicious activity, known indicators of intent[8] and known terrorist capabilities[9] when estimating the relative likelihood of an attack. Raw threat estimates were then determined through use of a structured threat rubric, which provided a standardized structure produced a value between 0.0 and 1.0.

STEP 6. ***Consequence (C) scores were derived from a combination of engineering studies and input from subject matter experts in transportation security and operations.*** Consequence is defined in TSSRA as the direct and indirect economic and human impacts associated with a successful attack. This variable includes monetized death and injury estimates, adds the direct costs of an attack, including replacement costs, and also includes indirect economic consequences associated with loss of revenues, impact upon tourism, and other downstream impacts associated with the attack. Consequence scores were assigned in terms of dollars. A combination of information gathered during formal elicitations from experts in transportation security, open-source research, and economic analysis were used to assign consequence scores.

STEP 7. Based on the values determined for consequence, vulnerability, and raw threat, ***Raw Risk scores were computed for each of the*** (b) (2)High ***attack scenarios across five modes of transportation*** via simple multiplication of these three variable inputs.

STEP 8. After the risk data was developed for each individual scenario, ***scenario categories, called attack families, were developed for a comparision of risk across modes of transportation***. The attack families were created by grouping individual scenarios by both attack method (e.g., explosives, assault, and chemical/biological) and transportation mode, as applicable. Within each attack family, the attack scenario with the highest raw risk score was selected as representative of the attack family for a modal and cross-modal comparative analysis.

STEP 9. ***The cross modal analysis is a comparison of risk at the attack family level and required the development and application of apportioned threat values.*** In this context, "apportioned threat" means that all raw threat scores were normalized to fit within the share of total threat assigned to their respective modes. This step allowed TSSRA to compare attack families within and across modes, regardless of the quantity or level of detail of the underlying detailed scenarios. It also allowed TSSRA to add attack family risk scores within a mode to produce a mode-level risk score, regardless of the number of attack families within a mode. This modal risk score is directly comparable to other mode-level risk scores.

STEP 10. TSA assesses and manages risk based on threat intelligence that is compiled and analyzed on a daily basis. These threats are summarized in the modal threat assessments that TSA publishes annually. ***For the TSSRA, TSA captured the***

[8] Intent is the likelihood that an adversary will choose a given attack scenario once they have committed to an attack.
[9] Capability is the likelihood that an adversary will have the resources and skills to undertake a given attack scenario within a defined timeframe.

numerical estimates of its senior intelligence analysts regarding the distribution of threat across the transportation sector as of November 2009. The information provided is an integral component of the TSSRA apportioned threat variable. Because threat is dynamic, it is anticipated that the estimates will be revised in future iterations of TSSRA. Figure 4 shows the distribution of estimated threat by mode; it does not represent risk.

Figure 4: Threat Distribution by Mode (November 2009)

STEP 11. Building on the intelligence-based estimation of modal threat distribution described in Step 10, TSSRA incorporated one additional element into the apportioned threat. Each mode has a certain number of attack families assigned to it. Each modal attack family has an assigned raw threat value (from the detailed attack scenario that represents the family). ***TSSRA assigned the final apportioned threat factor at the modal attack family level*** in the following manner: the individual modal family raw threat value divided by the sum of all family raw threat values within that mode. Hence, the family threat apportioned value is the modal threat percentage from step 10 multipled by the individual family raw threat value divided by the sum of all the family raw threat values within that mode. This accomplished the normalization described in Step 9. These apportioned Threat scores ranged from a low of 0.0 to a high of 0.0357.

STEP 12. ***Finally, TSSRA assessed Total Risk*** for a family by taking the product of the apportioned threat value, the corresponding family vulnerability value, and the corresponding family consequence value.

IV. Total Risk

Total risk used for TSSRA presents the most comprehensive estimate of risk, including all the generally accepted components of a terrorism risk assessment. It is consistent with the National Infrastructure Protection Plan (NIPP), the Interim National Risk Management Framework, and other security risk assessment guidance from the Government Accountability Office (GAO).

Total Risk is defined as the product of the apportioned threat value, the corresponding family vulnerability value, and the corresponding family consequence value. Total Risk for a mode is the sum of all family Total Risk values within that mode.

(EQ5) $$\text{Total Risk} = T_A \times (DD \times CM) \times (HC + DC + IC)]$$

Figure 5: TSSRA Cross-Modal Total Risk

C. Cross-Modal Comparative Analysis - Transportation Risk

I. Overview

TSSRA's cross-modal comparative analysis provides a strategic analysis of risk across the Nation's transportation sector. This strategic analysis is achieved through three risk views: Total Risk, Direct Consequence-Based Risk, and Conditional Risk. Total Risk is TSSRA's main view of risk and includes threat, vulnerability, and consequences (both direct and indirect). Due to inherent analytical uncertainties, two alternative risk views are provided: Direct Consequence-Based Risk and Conditional Risk.

Research shows that the manner in which risk is framed influences how it is understood.[10] Risk management experts recommend that risk is viewed from alternative perspectives for the clearest understanding. "Providing a best-case scenario usually increases the appetite for risk. Always look for the different ways in which risk can be presented" to ensure the fullest appreciation of risk.[11]

TSSRA's three risk views provide a deeper understanding of risk to and from the transportation sector, providing the ability to fully inform a decision maker's risk mitigation options.

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[10] Harvard Business Review, "The Six Mistakes Executives Make in Risk Management," Nassim N. Taleb, Daniel G. Goldstein, and Mark W. Spitznagel, October 2009, p. 80.

[11] Ibid, p. 81.

II. Findings of the Comparative Analysis

Figure 5 shows the distribution of Total Risk (the combination of threat, vulnerability, and consequences) by mode.

(b)(3):49 U.S.C. § 114(r)

Figure 6: Percentage of Total Risk by Mode of Transportation

(b)(3):49 U.S.C. § 114(r)

The top 25 cross-modal total risk values are shown in Table 3.

(b)(3):49 U.S.C. § 114(r)

Table 3: Top 25 Cross Modal Attack Families (Total Risk)

(b)(3):49 U.S.C. § 114(r)

Cross-modal findings concerning the transportation sector are as follows:

(b)(3):49 U.S.C. § 114(r)

III. Alternative Views of Transportation Risk

The TSSRA and its findings are affected by several types of uncertainty, such as indirect consequences and threat. The TSSRA provides results based on total risk, which includes threat, vulnerability, and consequences (both direct and indirect). However, to better understand risk uncertainties and its impact on the results, TSSRA provides an analysis of alternative views-Direct Consequence-Based and Conditional Risk. Because threat is not predictive and is continuously changing due to the adversaries' dynamic and adaptive nature, TSSRA addresses this threat uncertainty by including an alternative view called "Conditional Risk." Conditional Risk removes threat from the risk equation isolating only vulnerability and consequence values.[13]

Additionally, as stated in the NIPP[14], consequence estimates must include direct and indirect economic impacts. However, calculating indirect consequences introduces uncertainty due to the range of capturing economic components such as predicting consumer behavior, government response, and industry/economic conditions, and the time period used to capture these estimates. By including these alternative views of risk, decision makers will have a full range of risk information necessary to better understanding the risks to and from the transportation sector and determine appropriate risk mitigation options.

[13] See NIPP Appendix 3A, page 148 for a definition of conditional risk.

[14] 2009 National Infrastructure Protection Plan (NIPP), Chapter 3, section 3.3.3.2 "Consequence Uncertainty," page 35.

IV. Conditional Risk

Removing threat from the risk equation and isolating only vulnerability and consequences generates risk results that have a significantly different distribution of risk across modes, as seen in the pie chart below.

Figure 7: Percentage of Conditional Risk by Mode of Transportation

V. Direct Consequence-Based Risk

Removing indirect consequences from the risk equation addresses the uncertainty inherent in the magnitude of indirect consequence estimates, as seen in Figure 8. This approach emphasizes the importance of loss of lives and infrastructure damage and isolates modes of transportation that both transport a large amount of passengers and have large infrastructure replacement costs.

The table below features a side-by-side comparison of the top 10 attack families for each of the three risk views: Total Risk, Direct Consequence-Based Risk, and Conditional Risk.

(b)(3):49 U.S.C. § 114(r)

Table 4: Top Ten Comparison by Attack Family (Cross Modal)

Insights about risk in the transportation sector can be drawn from comparisons across these views.

(b)(3):49 U.S.C. § 114(r)

In summary, the Total Risk view should be the main risk input into strategic decision making. Direct Consequence-Based Risk includes attack families that emphasize deaths, injuries, and critical infrastructure damage; whereas, Conditional Risk includes attack families that are not threat dependent and exhibit both a high degree of vulnerability and consequence damage.

D. Individual Modal Analyses - Transportation Risk

I. Overview

TSSRA is not only a cross-modal comparative risk analysis but also an individual modal assessment for each of the five transportation modes: aviation, freight rail, highway, pipeline and mass transit. Each modal assessment provides a strategic analysis of the modes' respective risk, and includes the three risk views: Total Risk, Direct Consequence-Based Risk, and Conditional Risk. The modal analysis captures specific risk results that are used for the cross-modal comparative analysis, and to identify top risk concerns within each mode. Although a mode may not appear in the top tier cross-modal results or have a significant share of the total risk pie, each mode has its own unique security concerns.

II. Aviation Security Risk

All expressions of risk (threat, vulnerability, and consequence) contained in this section are specific to the aviation mode, and comparable with family risk scores with other modes of transportation. However, the findings in this section are specific and unique to the aviation mode. For more information on current threats to the aviation mode, please refer to TSA's Aviation Threat Assessment and the aviation modal plan as part of the Transportation Systems Sector Security Plan (TSSSP).

This baseline risk assessment includes both domestic and international aviation. To reflect the differences between domestic and international, the international analysis addresses attacks involving aircraft originating from aggregated Rest of World (ROW) locations[15]; the domestic analysis addresses a notional set of aviation assets and support systems for activities within the United States.

Key findings from the TSSRA are:

(b)(3):49 U.S.C. § 114(r)

[15] For this report "international" means takeoff from a foreign airport that is a last point of departure (LPD) to the United States. "Domestic" means takeoff from a U.S. airport regardless of destination.

(b)(3):49 U.S.C. § 114(r)

a. Findings of the Aviation Risk Assessment

As demonstrated by the 9/11 terrorist attacks, terrorist incidents within U.S. airspace or the targeting of U.S. commercial carriers can have an immediate and profound impact on the U.S. and global economies. According to data compiled by the International Civil Aviation Organization (ICAO) and the Federal Aviation Administration (FAA) from 2006-2008, U.S. and foreign flag carriers transported an estimated 153.9 million passengers between the United States and points abroad; and 717 million domestic and international passengers relied upon air travel in the U.S. alone. [16] The aviation sector transports a significant amount of cargo as well. In 2008, U.S. air carriers flew $37.1 billion revenue-ton miles of air cargo – $13.8 billion domestically and $23.3 billion internationally.[17]

The TSSRA categorizes the aviation system in the following groups: 1) Commercial Aviation, 2) Airports, 3) General Aviation, and 4) Air Cargo. TSSRA views aviation risk from two primary perspectives: domestic and international, where international is defined as the world excluding the United States [or more commonly the rest of the world (ROW)].

(b)(3):49 U.S.C. § 114(r)

[16] See www.faa.gov: http://www.faa.gov/data_research/aviation/aerospace_forecasts/2009-2025/media/Review%20of%202008.pdf

[17] See Transportation Systems Sector Security Plan (TSSSP), Aviation Modal Plan.

(b)(3):49 U.S.C. § 114(r)

Table 5 provides the top ten attack families by total risk values and supports the key findings.

(b)(3):49 U.S.C. § 114(r)

Table 5: Top 10 Domestic Aviation Attack Families (Total Risk)

Comparison of Domestic vs. International

(b)(3):49 U.S.C. § 114(r)

(b)(3):49 U.S.C. § 114(r)

Table 6: Domestic and International Attack Family Summary (Total Risk)

Although not specifically illustrated in the table above, a preliminary analysis of regional-based views of International Aviation found the following:

(b)(3):49 U.S.C. § 114(r)

b. Alternative Views of Aviation Risk

TSSRA provides two alternative views of the risk data compiled for aviation. These views are: 1) Direct Consequence-Based Risk, applying only direct consequence (the cost of casualties and

direct damage) with threat and vulnerability; and 2) Conditional Risk, using vulnerability and total consequences to account for the uncertainty associated with any specific threat.

Table 7 is a comparison of the top five domestic aviation attack families from three risk views.

(b)(3):49 U.S.C. § 114(r)

Table 7: Alternate View Comparison by Domestic Aviation Attack Family

c. Aviation Conclusions and Next Steps

It is important to note that this report reflects a snapshot of risk at a particular point in time. Data collected are point estimates, which may vary as risk evolves, as the adversary's intent and capabilities shift, and as vulnerabilities are addressed.

Conclusions

(b)(3):49 U.S.C. § 114(r)

(b)(3):49 U.S.C. § 114(r)

Next Steps

(b)(3):49 U.S.C. § 114(r)

- Use TSSRA to inform future studies on transportation security countermeasures.

[19] For additional information see GAO findings from GAO-09-399 " *A National Strategy and Other Actions Would Strengthen TSA's Efforts to Secure Commercial Airport Perimeters and Access Controls*" http://www.gao.gov/new.items/d09399.pdf)
[20] see GAO-10-128 recommendations, " *DHS and TSA Have Researched, Developed, and Begun Deploying Passenger Checkpoint Screening Technologies, but Continue to Face Challenges*" http://www.gao.gov/new.items/d10128.pdf

III. Freight Rail Security Risk

All expressions of risk (threat, vulnerability, and consequence) contained in this section are specific to the U.S. freight rail mode, and comparable with family risk scores with other modes of transportation. However, the findings in this section are specific and unique to the freight rail mode. For more information on current threats to the freight rail mode, please refer to TSA's Freight Rail Threat Assessment and the freight rail modal plan as part of the Transportation Systems Sector Security Plan (TSSSP).

Key findings from the TSSRA are:

(b)(3):49 U.S.C. § 114(r)

a. Findings of the Freight Rail Risk Assessment

The U.S. freight rail system is a potentially attractive terrorist target based on the kinds of freight it transports, the system's importance to the U.S. economy, and its inherent vulnerabilities. A list of potentially significant rail targets include (b)(3):49 U.S.C. § 114(r)

(b)(3):49 U.S.C. § 114(r)

(b)(3):49 U.S.C. § 11 Analysis of worldwide attacks by the U.S. Intelligence Community reveals that there has been historic interest in carrying out attacks on railroad systems. These systems' vulnerabilities are generally high due to (b)(3):49 U.S.C. § 114(r)

(b)(3):49 U.S.C. § 114(r)

(b) The consequences of an attack within the freight rail mode would be economic in nature.

(b)(3):49 U.S.C. § 114(r), there are relatively few targets which, if attacked, would result in significant numbers casualties.

The table below provides the top attack families by total risk values and supports the key findings.[21]

(b)(3):49 U.S.C. § 114(r)

(b)(3):49 U.S.C. § 114(r)

Table 8: Top 9 Freight Rail Attack Families

b. Alternative Views

TSSRA provides two alternative views of the risk data compiled for the freight rail assessment. These views are: (1) Direct Consequence-Based Risk, applying only direct consequence (the cost of casualties and direct damage) with threat and vulnerability; and (2) Conditional Risk, using vulnerability and total consequences to account for the uncertainty associated with any specific threat.

Table 9 is a comparison of the top five freight rail attack families from three risk views. The results are identical with one notable exception: the Direct Consequence-Based Risk view

(b)(3):49 U.S.C. § 114(r)

[22] Threat values range from a low of 0.0 to a high of 0.0357.

(b)(3):49 U.S.C. § 114(r)

Table 9: Alternate View Comparison by Freight Rail Attack Family

c. Freight Rail Conclusions and Next Steps

It is important to note that this report reflects a snapshot of risk at a particular point in time. Data collected are point estimates, which may vary as risk evolves, as the adversary's intent and capabilities shift, and as vulnerabilities are addressed.

Conclusions

(b)(3):49 U.S.C. § 114(r)

Next Steps

(b)(3):49 U.S.C. § 114(r)

IV. Highway Security Risk

All expressions of risk (threat, vulnerability, and consequence) contained in this section are specific to the U.S. highway domain, and comparable with family risk scores with other modes of transportation. However, the findings in this section are specific and unique to the highway mode. For more information on current threats to the highway system, please refer to TSA's Highway Threat Assessment and the highway modal plan of the Transportation Systems Sector Security Plan (TSSSP).

Key findings of TSSRA are:

(b)(3):49 U.S.C. § 114(r)

a. Findings of the Risk Assessment

The Nation's highway transportation system includes 3.8 million miles of roadways, 582,000 bridges, and 54 tunnels over 500 meters in length. The highway system supports 86 percent of all U.S. personal travel, moves 80 percent of the Nation's freight (based on value), and serves as a key component in national defense mobility. The physical components of the highway transportation system include the following basic features: infrastructure (roads, bridges, tunnels, and terminals); vehicles (commercial and rental trucks, school buses); and facilities (terminals, warehouses, depots, and other transportation-related buildings). Finally, control and communications systems are necessary for controlling vehicles, infrastructure, and large transportation networks.

Worldwide, terrorists have successfully executed attacks against or using highway assets and infrastructure abroad. (b)(3):49 U.S.C. § 114(r)

(b)(3):49 U.S.C. § 114(r

The table below provides the top ten attack families by total risk values and supports the key findings.

(b)(3):49 U.S.C. § 114(r)

Table 10: Top 10 Highway Attack Families (Total Risk)

b. Alternative Views

TSSRA provides two alternative views of the risk data compiled for the highway assessment. These views are: (1) Direct Consequence-Based Risk, applying only direct consequence (the cost of casualties and direct damage) with threat and vulnerability; and (2) Conditional Risk, using vulnerability and total consequences to account for the uncertainty associated with any specific threat.

[23] Threat values range from a low of 0.0 to a high of 0.0357.

Table 11 is a comparison of the top five highway attack families from three risk views. The results are identical with one notable exception: (b)(3):49 U.S.C. § 114(r)

(b)(3):49 U.S.C. § 114(r)

(b)(3):49 U.S.C. § 114(r)

Table 11: Alternate View Comparison by Highway Attack Family

c. Highway Conclusions and Next Steps

It is important to note that this report reflects a snapshot of risk at a particular point in time. Data collected are point estimates, which may vary as risk evolves, as the adversary's intent and capabilities shift, and as vulnerabilities are addressed.

Conclusions

(b)(3):49 U.S.C. § 114(r)

(b)(3):49 U.S.C. § 114(r)

Next Steps

(b)(3):49 U.S.C. § 114(r)

V. Mass Transit Security Risk

All expressions of risk (threat, vulnerability, and consequence) contained in this section are specific to the U.S. mass transit mode, and comparable with family risk scores with other modes of transportation. However, the findings in this section are specific and unique to the mass transit mode. For more information on current threats to the mass transit mode, please refer to TSA's Mass Transit Threat Assessment and the mass transit modal plan as part of the Transportation Systems Sector Security Plan (TSSSP).

Key findings from TSSRA are:

(b)(3):49 U.S.C. § 114(r)

a. Findings of the Risk Assessment

The U.S. mass transit system is an attractive terrorist target because of its inherent vulnerabilities due to the system's open "architecture" serving large volumes of riders on multiple modes. According to the American Public Transportation Association (APTA), 2008 was a record year with approximately 10.7 billion passenger trips which was the highest level of ridership on public transportation in 52 years—a 40 percent increase from 2007.[24]

The table below provides the top ten attack families by total risk values and supports the key findings.

[24] *2009 Public Transportation Fact Book*. American Public Transportation Association (APTA). 2009. pg. 7.

(b)(3):49 U.S.C. § 114(r)

Table 12: Top 10 Mass Transit Attack Families (Total Risk)

[25] Threat values range from a low of 0.0 to a high of 0.0357.

b. Alternative Views

TSSRA provides two alternative views of the risk data compiled for the mass transit assessment. These views are: (1) Direct Consequence-Based Risk, applying only direct consequence (the cost of casualties and direct damage) with threat and vulnerability; and (2) Conditional Risk, using vulnerability and total consequences to account for the uncertainty associated with any specific threat.

The table below is a comparison of the top five mass transit attack families from three risk views.

(b)(3):49 U.S.C. § 114(r)

(b)(3):49 U.S.C. § 114(r)

Table 13: Alternate View Comparison by Mass Transit Attack Family

c. Mass Transit Conclusions and Next Steps

It is important to note that this report reflects a snapshot of risk at a particular point in time. Data collected are point estimates, which may vary as risk evolves, as the adversary's intent and capabilities shift, and as vulnerabilities are addressed.

Conclusions

(b)(3):49 U.S.C. § 114(r)

Next Steps

(b)(3):49 U.S.C. § 114(r)

VI. Pipeline Security Risk

All expressions of risk (threat, vulnerability, and consequence) contained in this section are specific to the U.S. pipeline mode, and comparable with family risk scores with other modes of transportation. However, the findings in this section are specific and unique to the pipeline mode. For more information on current threats to the pipeline mode, please refer to TSA's Pipeline Threat Assessment and the pipeline modal plan as part of the Transportation Systems Sector Security Plan (TSSSP).

Key findings of the TSSRA are:

(b)(3):49 U.S.C. § 114(r)

a. Pipeline Security Risk Findings

Oil pipelines carry over 75 percent of the Nation's crude oil and 60 percent of its refined petroleum products, providing the nation's energy supply with connections to other critical infrastructure such as airports and electric power plants.[26] The vast majority of the Nation's natural gas moves from well to market via pipeline. In addition to oil and natural gas transmission, pipelines are used to transport manufacturing chemicals such as anhydrous ammonia, a critical fertilizer for the American farming industry and feedstock for the chemical industry. The disruption of key assets within the pipeline system would prove to be disruptive to the American economy. Because of its importance to the energy industry and to national and global commodities markets, it makes an attractive target for terrorist attacks.

The U.S. pipeline system suffers from vulnerabilities associated with its relatively low levels of physical security, which has allowed for past acts of vandalism and attacks using firearms.[27] The

(b)(3):49 U.S.C. § 114(r)

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[26] *Bureau of Transportation Statistics (BTS), "National Transportation Statistics, February*2008.

[27] Congressional Research Service, *Report RL33347 Pipeline Safety and Security: Federal Programs*, 6 October 2008, p. 2.

Commodities once destined for transport through the effected pipeline could be redirected to another pipeline—if capacity exists—or more likely, transported by another, more costly, mode of transport.

Table 14 provides the top ten attack families by total risk values and supports the key findings.

(b)(3):49 U.S.C. § 114(r)

Table 14: Top 10 Pipeline Attack Families (Total Risk)

b. Alternative Views

TSSRA provides two alternative views of the risk data compiled for the pipeline assessment. These views are: (1) Direct Consequence-Based Risk, applying only direct consequence (the cost of casualties and direct damage) with threat and vulnerability; and (2) Conditional Risk, using vulnerability and total consequences to account for the uncertainty associated with any specific threat.

Table 15 is a comparison of the top five pipeline attack families from three risk views. The

(b)(3):49 U.S.C. § 114(r)

(b)(3):49 U.S.C. § 114(r)

Table 15: Alternate View Comparison by Pipeline Attack Family

c. Pipeline Conclusions and Next Steps

The pipeline security risk assessment results of TSSRA provide a detailed assessment and evaluation of the relative degree of security risk associated with a potential terrorist attack upon and/or involving the pipeline mode. It is important to note that this report reflects a snapshot of risk at a particular point in time. Data collected are point estimates, which may vary as risk evolves, as the adversary's intent and capabilities shift, and as vulnerabilities are addressed.

Conclusions

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Next Steps

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E. Appendices

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APPENDIX A: Key Assumptions, Determinations and Limitations

Given the inherent uncertainties in this and any risk assessment, the following key assumptions and distinctions were made to constrain such uncertainties to a manageable level. Other assumptions were made to account for timeline and resource limitations. Primary assumptions, determinations and limitations are as follows:

(b)(3):49 U.S.C. § 114(r)

- TSA recognizes that threats are continually evolving and capability and intent parameters can change quickly. For this reason, the threat parameters in TSSRA have a current to one year projected outlook. TSSRA is not predictive in nature and does not assume an attack is certain; it only indicates the relative likelihood that an attacker, given the desire to make an attack, would have a certain degree of capability and/or intent for a particular scenario. For more information on current threats to the Nation's transportation system, please refer to TSA's Modal Threat Assessments and the modal plans as part of the Transportation Systems Sector Security Plan (TSSSP).
- Consequence estimates include a monetized value for direct (immediate economic damage) and loss of life as well as aggregated indirect (secondary macro- and micro-economic) impacts.
- While this assessment considered both direct and indirect consequences and is supported by over 850 pages of economic data, the impact of including indirect consequences can greatly alter the total risk score. Therefore, this assessment has provided three separate views (1) total risk using both direct and indirect consequences, (2) Direct Consequence-Based risk using only direct consequences, and (3) conditional risk where only the vulnerability multiplied by the total consequences are evaluated.

(b)(3):49 U.S.C. § 114(r)

- Nuclear attacks were not considered as part of the TSSRA. TSA is participating in Radiological and Nuclear Terrorism Risk Assessment (RNTRA), another large scale risk assessment focused on radiological and nuclear risk and led by the Department of Homeland Security's Domestic Nuclear Detection Office.

(b)(3):49 U.S.C. § 114(r)

- Within each mode there are attack families and scenarios that require further refinement of the risk values and better understanding of the risk drivers.

- Estimates for indirect economic cost associated with consequence are uncertain. These costs will impact the assessment of cargo-centric modes of transportation such as pipeline, freight rail and commercial trucking. A better understanding of indirect consequences such as what to include and how to better calculate the range of outcomes would reduce the uncertainty in the consequence estimates.

(b)(3):49 U.S.C. § 114(r)

- The threat parameters for aviation were determined by TSA intelligence analysts and reviewed by the intelligence community, including relevant components of the Defense Intelligence Agency, Drug Enforcement Administration, Federal Bureau of Investigation, National Counterterrorism Center, Office of the Director of National Intelligence, and the Federal Aviation Administration.

(b)(3):49 U.S.C. § 114(r)

(b)(3):49 U.S.C. § 114(r)

- It was a joint decision by the U.S. Coast Guard (USCG) and TSA to not include maritime transportation security risk in this report. The USCG is the lead Federal agency for maritime transportation security and uses the Maritime Security Risk Analysis Model (MSRAM) to assess maritime risk. TSSRA and MSRAM employ different analytic approaches, which prevents any meaningful cross-modal comparative analysis. The USCG's annual report to Congress titled *Threat of Terrorism to U.S. Ports and Vessels* is a comprehensive risk assessment of maritime security and provides a similar analysis of maritime transportation as TSSRA does for the other transportation modes.

APPENDIX B: Methodology Regarding Uncertainty

One of the follow-on activities for the 2011 TSSRA is to quantify the range of uncertainty associated with attack family risk scores. TSSRA's methodology requires TSA to estimate each element of the risk equation (threat, vulnerability, and consequence), and TSA is fully aware that there is a degree of uncertainty associated with those estimates.

As part of the 2010 process, TSA required experts to develop "best" estimates of threat, vulnerability, and consequence scores. Additionally, TSA developed "high" and "low" estimates for vulnerability and consequence. TSA used the "best" estimates to create a point estimate for risk for each scenario, and used the "high" and "low" estimates to create a range of uncertainty for each scenario.

Figure 9 shows the ranges of uncertainty around the point estimates of attack family risk scores using the above approach. While it is clear that TSA needs to further develop its methodology to improve this uncertainty analysis, some qualitative conclusions can be drawn.

Within the limits of this analysis, varying the point estimates within their uncertainty ranges would cause little change in the overall conclusions of the TSSRA. Individual scenarios could move up or down several places in rank order; however, that movement would elevate few into the Top 25 that were not already there; and would demote few out of the Top 25. Thus conclusions based on specific membership of the Top 25 would change only minimally.

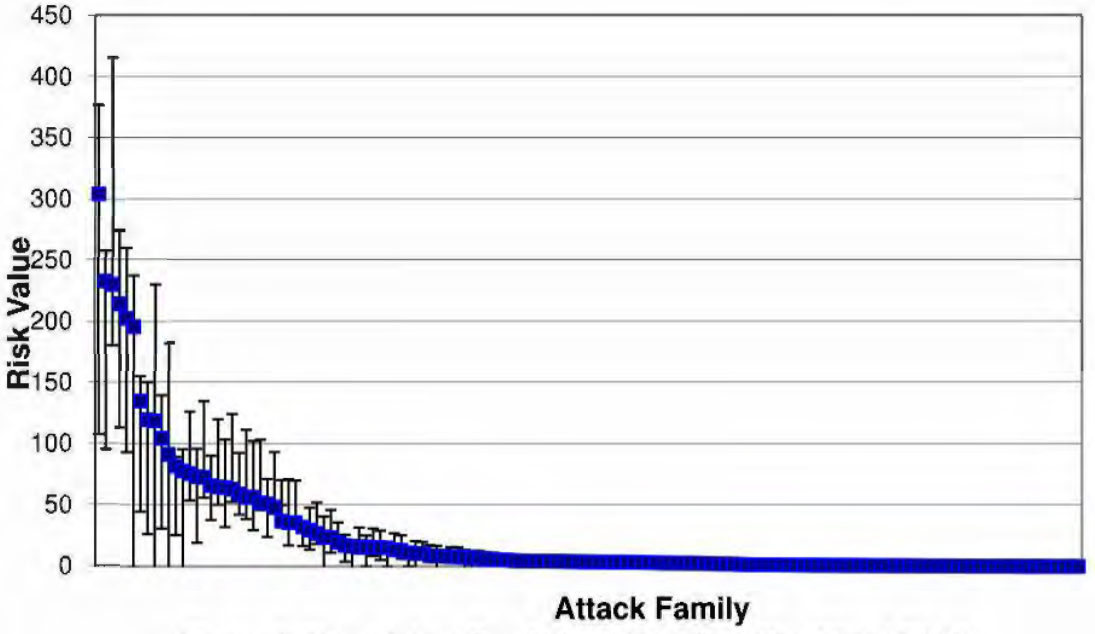

Figure 9: Uncertainty Bands for Attack Families (Total Risk)

APPENDIX C: Methodology for Number of Parallel Attacks

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APPENDIX D: Aviation

Appendix D is the top ten aviation attack scenarios. Attack scenarios provide additional detail to inform countermeasure strategies.

(b)(3):49 U.S.C. § 114(r)

Table 16: Top 10 Domestic Aviation Attack Scenarios (Total Risk)

APPENDIX E: Freight Rail

Appendix E is the top ten freight rail attack scenarios. Attack scenarios provide additional detail to inform countermeasure strategies.

(b)(3):49 U.S.C. § 114(r)

Table 17: Top 10 Freight Rail Attack Scenarios (Total Risk)

APPENDIX F: Highway

Appendix F is the top ten highway attack scenarios. Attack scenarios provide additional detail to inform countermeasure strategies.

(b)(3):49 U.S.C. § 114(r)

Table 18: Top 10 Highway Scenarios (Total Risk)

APPENDIX G: Mass Transit

Appendix G is the top ten mass transit attack scenarios. Attack scenarios provide additional detail to inform countermeasure strategies.

(b)(3):49 U.S.C. § 114(r)

Table 19: Top 10 Mass Transit Attack Scenarios (Total Risk)

APPENDIX H: Pipeline

Appendix H is the top ten pipeline attack scenarios. Attack scenarios provide additional detail to inform countermeasure strategies.

(b)(3):49 U.S.C. § 114(r)

Table 20: Top 10 Pipeline Attack Scenarios (Total Risk)

APPENDIX I: TSSRA Participants

ABSG Consulting Group
Academy Bus
Aerospace Industries Association
Air Line Pilots Association
Air Products
Air Transport Association
Aircraft Owners and Pilots Association
Airports Council International-North America
Amalgamated Transit Union
American Association of Airport Executives
American Association of State Highway and Transportation Officials
American Bus Association
American Chemistry Council
American Federation of Labor-Congress of Industrial Organizations
American Federation of Teachers
American Petroleum Institute
American Trucking Association
Aviation Risk Working Group
Association of American Railroads
A-T Solutions
Aviation Security Working Group
BayFirst Solutions LLC
BNSF Railways
Boeing
Boyle Transportation
California Department of Transportation
CATEYES
Chlorine Institute
Coach America
Coach USA
Commercial Vehicle Safety Alliance
Compressed Gas Association
Con-Way
Dell Transportation
Delta Air Lines
Department of Education
Department of Energy-Office of Electricity Delivery and Energy Reliability
Department of Homeland Security/Risk Management and Analysis
Department of Homeland Security, Science and Technology Directorate
Department of Transportation
Department of Transportation-Pipeline & Hazardous Materials Safety Admin.
Dousman Transport
Dow Chemical
Durham School Services
Engineer Research and Development Center (Army Corps of Engineers)
Eyre Bus Service
Federal Aviation Administration
Federal Bureau of Investigation
Federal Highway Administration
Federal Motor Carrier Safety Administration
First Group

First Priority Trailways
First Student
Flower Bus Company
Food and Drug Administration
Fowler Bus Company
Fraternal Order of Police
GRA Incorporated
Government Coordinating Councils
General Aviation Manufacturers Association
Greyhound Bus Lines Inc.
Greyhound Bus Lines Inc.
Grocery Manufacturers Association
Groendyke Transport, Inc.
Helicopter Association International
Honeywell International
Household Goods Forwarders
Huntington Coach Group
ICF International
Indian River Transport – Liquid Food Carriers
Institute of Makers of Explosives
International Association for Chiefs of Police
International Bridge, Tunnel, and Turnpike Association
International Dairy Foods Association
Isochem
JB Hunt
Jefferson Lines
Juice Products Association
Kansas Department of Transportation
Keenan Advantage
Kuehne
Mach 1 Air Services
Maryland Mass Transit Administration
Michigan Department of Transportation
Mid States Express
National Association for Pupil Transportation
National Association for Pupil Transportation, Maryland
National Association for Pupil Transportation, Utah
National Association of Small Trucking Companies
National Association of State Aviation Officials
National Association of State Directors of Pupil Transportation Service
National Business Aviation Association
National Industrial Transportation League
National Private Truck Council
National School Transportation Association
National Sherriff's Association
National Tank Truck Carriers
New World Tours
New York Department of Transportation
Norfolk Southern
Office of the Director of National Intelligence
Owner Operator Independent Driver Association
Paradise Trailways
Peter Pan Bus
Peter Pan Bus
Port Authority of New York and New Jersey

Prax Air
Quality Distribution
SAIC
Sector Coordinating Councils
Schneider National Inc.
Sunrise Transit
Swift Transportation
Teamsters
The Fertilizer Institute
The Trans Group
Towne Air Freight, LLC
Transit Police Department/Washington Metropolitan Area Trans. Auth.
Transportation Research Associates
Transportation Trades Department
Tri-State
Truck Renting and Leasing Association
U.S. Department of Agriculture
Union Pacific
United Airlines
United Egg Producers/United Egg Association
United Motor Coach Association
United States Coast Guard
University of Texas
VA Governor's Office of Commonwealth Preparedness
Yellow Transportation
YRC Worldwide

APPENDIX J: Glossary of Terms and Acronyms

For the purposes of this risk assessment, the following terms and definitions apply. Items in **bold** text are verbatim excerpts from the *DHS Risk Lexicon*.

ADVERSARY: individual, group, organization, or government that conducts or has the intent to conduct detrimental activities.

ARMED ASSAULT: an attack method by a team of adversaries using small arms (e.g., rifles).

ATTACK FAMILY: a broad, general combination of an asset/target (e.g., mass transit passenger rail) and an attack method (e.g., IED). Represents a number of more specific individual "attack scenarios."

ASSET: person, structure, facility, information, material, or process that has value (see target).

ATTACK METHOD: manner and means, including the weapon and delivery method, an adversary may use to cause harm on a target.

ATTACK PATH: steps that an adversary takes or may take to plan, prepare for, and execute an attack.[30]

ATTACK SCENARIO: a combination of a more specific asset/target (e.g., mass transit heavy rail or light rail) and a more specific attack method (e.g., leave-behind IED, or suicide IED, or IID).

BIOLOGICAL AGENT ATTACK: an attack method involving the release of a biological agent in order to harm people and induce terror.

CAPABILITY: the likelihood that an adversary will have the resources and skills to undertake a given attack scenario within a defined timeframe.

CHEMICAL AGENT ATTACK: an attack method involving the release of a chemical agent in order to harm people and induce terror.

COMPARATIVE RISK ANALYSIS: an aggregation of the results of modal risk assessments to produce a valuation of risks.

CONSEQUENCE: the monetized value of direct and indirect economic and human impacts associated with a successful attack.

CONSEQUENCE ASSESSMENT: process of identifying or evaluating the potential or actual effects of an event, incident, or occurrence.

[30] An attack path may include recruitment, radicalization, and training of operatives, selection and surveillance of the target, construction or procurement of weapons, funding, deployment of operatives to the target, execution of the attack, and related post-attack activities.

COUNTERMEASURE: action, measure, or device that reduces any component (threat, vulnerability or consequence) of an identified risk.

DIRECT ECONOMIC CONSEQUENCE: effect of an attack that includes human costs (monetized at a value of $6.3M per fatality) and repair, replacement, and clean up costs directly attributed to the attack.

DIRECT CONSEQUENCE-BASED RISK: This view of risk considers threat, vulnerability, and consequence with direct cost estimates only (using a monetized value for lives lost). This risk view accounts for: a) high uncertainty, and low confidence in cross-mode comparability, of indirect cost estimates; and b) the worldview that human consequences (deaths) are more important than others. This view has the effect of highlighting scenarios with the largest number of deaths.

ECONOMIC CONSEQUENCE: effect of an incident, event, or occurrence on the value of property or on the production, trade, distribution, or use of income, wealth, or commodities. Economic consequences in TSSRA are measured in monetary units.

HUMAN CONSEQUENCE: effect of an incident, event, or occurrence that results in injury, illness, or loss of life.

Improvised Explosive Device (IED): an attack method that uses various forms of explosive substances to create a device that is used to detonate upon a target.

INDIRECT ECONOMIC CONSEQUENCE: the indirect or secondary economic effects of the attack. Includes estimates of long-term effects on the industry attacked, cascading effects on industries associated with the attacked industry and the discounting of opportunity costs.

INTENT: the likelihood that an adversary will choose a given attack scenario once committed to an attack. Intelligence indicating intent may include public statements, reported suspicious activity, intercepted planning documents, intercepted adversary communications, previous like-kind attacks that demonstrate a pattern, and other relevant information.

INTERNATIONAL AVIATION: aircraft taking off from a foreign airport that is a last point of departure (LPD) to the United States (see ROW).

PSYCHOLOGICAL CONSEQUENCE: the negative impact of an incident, event, or occurrence on the behavior or emotional and mental state of an affected population.

RADIOLOGICAL DISPERSION ATTACK: an attack method using a device to disperse harmful radiological material into the environment.

RESIDUAL RISK: risk that remains after risk management measures have been implemented.

REST OF WORLD (ROW): the world excluding the United States, or more commonly the rest of the world. TSSRA further segments international aviation into rest of world (ROW) regions such as Western Europe, East Asia, and Mexico/Central and South America/Caribbean.

RISK: potential for an unwanted outcome resulting from an incident, event, or occurrence, as determined by the combination of its likelihood and the associated consequences.

RISK ASSESSMENT METHODOLOGY: set of methods, principles, or rules used to identify and assess risks and to form priorities, develop courses of action, and inform decision-making.

RISK TRANSFER: action taken to manage risk that shifts some or all of the risk to another entity, asset, system, network, or geographic area.[31]

SABOTAGE: an attack method that attempts to disrupt the transportation system. (e.g., RF/EMP, cyber, disabling tracks, contaminating food during transport).

SEMI-QUANTITATIVE RISK ASSESSMENT METHODOLOGY: set of methods, principles, or rules to assess risk that uses bins, scales, or representative numbers whose values and meanings are not maintained in other contexts.[32]

STANDOFF WEAPON ATTTACK: an attack method using standoff weapons (e.g., MANPADS, heavy machine gun, mortar, RPG).

THREAT: the likelihood that an attacker will attempt a particular attack scenario given the intent and capability of the attacker.

THREAT ASSESSMENT: process of identifying or evaluating entities, actions, or occurrences that have or indicate the potential to harm life, information, operations and/or property.

UNCERTAINTY: degree to which a calculated, estimated, or observed value may deviate from the true value.[33]

Vehicle Borne Improvised Explosive Device (VBIED): a commonly used subset of the IED attack method. Includes the use of a vehicle in order to carry and deliver a large amount of explosive substances for detonation upon a target.

VULNERABILITY: the likelihood that an adversary will successfully defeat current countermeasures given that the attack is attempted.

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[31] Risk transfer may refer to transferring the risk from asset to asset, asset to system, or some other combination, or shifting the responsibility for managing the risk from one authority to another (for example, responsibility for economic loss could be transferred from a homeowner to an insurance company).

[32] While numbers may be used in a semi-quantitative methodology, the values are not applicable outside of the methodology, and numerical results from one methodology cannot be compared with those from other methodologies.

[33] Uncertainty may stem from many causes, including the lack of information. The concept of uncertainty is useful in understanding that likelihoods and consequences can oftentimes not be predicted with a high degree of precision or accuracy.

Air Cargo Screening Statistics

Fiscal Year 2009 Report to Congress

Third Quarter, FY 2009

January 7, 2010

Homeland Security

Transportation Security Administration

Message from the Acting Administrator

January 7, 2009

This document constitutes the Transportation Security Administration's (TSA's) submission of a report regarding air cargo screening statistics for the Third Quarter of Fiscal Year (FY) 2009.

This report is required by Section 515 of the FY 2009 Department of Homeland Security Appropriations Act, 2009 (P.L. 110-329), which specifically requires TSA to submit screening statistics to Congress on a quarterly basis. P.L. 110-329 also requires TSA to report the amount of cargo screened at each airport by each passenger air carrier. Statistics included in this report are derived from data reported by the air carriers in the months of April, May and June 2009.

Section 1602 of the Implementing Recommendations of the 9/11 Commission Act of 2007 (P.L. 110-53) mandates that 50 percent of cargo placed on passenger aircraft be screened not later than February 3, 2009, and that 100 percent of cargo placed on passenger aircraft be screened not later than August 3, 2010. TSA is pleased to report that the February 2009 50 percent screening mandate has been met.

Pursuant to congressional requirements, this report is being provided to the following Members of Congress:

The Honorable David E. Price
Chairman, House Appropriations Subcommittee on Homeland Security

The Honorable Harold Rogers
Ranking Member, House Appropriations Subcommittee on Homeland Security

The Honorable Robert C. Byrd
Chairman, Senate Appropriations Subcommittee on Homeland Security

The Honorable George V. Voinovich
Ranking Member, Senate Appropriations Subcommittee on Homeland Security

Inquiries relating to this report may be directed to me at (571) 227-(b)(6) or to the Department's Acting Chief Financial Officer, Peggy Sherry, at (b)(6)

Sincerely,

Gale Rossides
Acting Administrator
Transportation Security Administration

Executive Summary

This document constitutes the Transportation Security Administration's (TSA's) submission of a report regarding air cargo screening statistics for the Third Quarter of Fiscal Year (FY) 2009. This report is required by Section 515 of the Department of Homeland Security Appropriations Act, 2009 (P.L. 110-329.).

The Third Quarter, FY 2009 air cargo screening report includes a variety of statistics that identify the volume of air cargo accepted and screened, as reported by passenger air carriers and evaluated by TSA. Specifically, the report summarizes the following information:

1) Air cargo screening statistics from regulated domestic and foreign air carriers. This information encompasses all data, figures and diagrams for the months of April, May and June 2009. Specifically, the data focus on cargo uplifted on flights originating within the United States/territories and cargo uplifted on inbound flights originating outside the United States/territories.

2) Air cargo screening statistics relating to Indirect Air Carriers, shippers and other entities certified by TSA to screen cargo for uplift on domestic passenger flights. These Certified Cargo Screening Facilities report cargo screening data to TSA pursuant to their program requirements.

3) Inbound cargo from international last points of departure (LPD). Analysis of historical data from the Bureau of Transportation Statistics (BTS) suggests that more than 50 percent of cargo entering the United States from an LPD is screened prior to uplift. The BTS data provide insight into the amount of cargo entering the United States aboard passenger aircraft by weight.

Air Cargo Screening Statistics

Table of Contents

I. Legislative Requirement

This document responds to the reporting requirement set forth in the Section 515(d) of the Fiscal Year (FY) 2009 Department of Homeland Security (DHS) Appropriations Act, P.L. 110-329, which states:

> Not later than 45 days after the end of each quarter, the Assistant Secretary (Transportation Security Administration) shall submit to the Committees on Appropriations of the Senate and the House of Representatives a report on air cargo inspection statistics by airport and air carrier detailing the incremental progress being made to meet section 44901(g)(2) of title 49, United States Code.

II. Background

The FY 2007 DHS Appropriations Act, P.L. 109-295, signed October 4, 2006, states that the Transportation Security Administration (TSA) "shall report air cargo screening statistics quarterly to the committees on Appropriations of the Senate and the House of Representatives, by airport and passenger air carrier…." The reporting requirement is continued by Section 515(d) of the FY 2009 Department of Homeland Security Appropriations Act, P.L. 110-329.

To implement the congressional mandate, TSA has issued a series of Security Directives, Emergency Amendments, and updates to air carrier security programs requiring air carriers to submit cargo statistics on a monthly basis. The statistics derived from these submissions are the basis for TSA's report to Congress. In addition to the recent 50-percent cargo screening requirement, TSA has further secured the air cargo environment by requiring the screening of 100 percent of cargo placed on passenger aircraft at smaller commercial Category II–IV airports throughout the United States and its territories. TSA has also mandated 100-percent screening of cargo identified as elevated risk within the U.S. air cargo supply chain, and required that sensitive cargo be subject to alternative security measures. In October 2008, TSA mandated the screening of 100 percent of cargo placed on narrow body aircraft departing from the United States and its territories' airports.

III. TSA Air Cargo Screening Statistics Report

A. Q3 FY 2009 Screening Summary

Pursuant to the reporting requirement set forth in Section 515(d), of the FY 2009 DHS Appropriations Act, P.L. 110-329, TSA hereby submits air cargo screening data for the Third Quarter of FY 2009.

Cargo Uplifted on Flights Originating Within the United States and Territories

Month	% Cargo Screened by Weight	% Cargo Screened by Shipment (MAWB*)
April 2009	62%	78%
May 2009	62%	76%
June 2009	62%	77%
Q3 FY2009	62%	77%
Q2 FY2009	60%	80%

*MAWB stands for Master Air Way Bill

Cargo Uplifted on Inbound Flights Originating Outside the United States and Territories[1]

Month	Weight Tendered (lbs)	Weight Screened (lbs)	Percentage of Pounds Screened
April 2008	277,712,163	148,894,104	54%
May 2008	267,929,770	143,077,452	53%
June 2008	267,190,938	145,163,452	54%
Q3 FY 2008 Total	812,832,871	437,135,008	54%
Q2 FY 2008 Total	543,804,590	299,132,083	55%

[1] 2008 air carrier reporting data from Bureau of Transportation Statistics (BTS). FY 2009 third quarter data will not be available until June 2010.

B. Domestic Air Carrier Statistics

Air carriers, operating domestically, reported cargo screening data to TSA pursuant to their security programs. An analysis of this data verifies that the February 2009 50-percent screening mandate has been achieved. A summary of these statistics follows:

Cargo Uplifted on Flights Originating Within the United States and Territories

Month	# of MAWB Uplifted	Weight Uplifted (lbs)	# of MAWB Screened	Weight Screened (lbs)
April 2009	452,806	213,119,470	355,386	131,677,300
May 2009	471,026	231,384,776	359,303	143,118,627
June 2009	481,463	218,401,002	371,879	136,141,859
Q3 FY 2009	1,405,295	662,905,248	1,086,568	410,937,786
Q2 FY 2009	921,407	430,031,466	738,819	256,261,190
Q3 FY2009: 77 percent of MAWB screened; 62 percent of weight screened.				

Cargo Screening Distribution for April, May and June 2009

(b)(3):49 U.S.C. § 114(r)

Note: K-9 data includes cargo screened by TSA proprietary canine teams (either as primary or secondary screening). This cargo may also be included in the data reported by air carriers. TSA airport screening includes all screening performed by TSA at Category II–IV airports.

C. Domestic Certified Cargo Screening Program

Indirect Air Carriers (IACs), shippers and other entities screening cargo for uplift on domestic passenger flights as Certified Cargo Screening Facilities (CCSFs) also reported cargo screening data to TSA pursuant to their program/order requirements. A summary of this data follows. These numbers are included in cargo data reported by air carriers.

CCSF-IAC Shipments Uplifted on Flights Originating Within the United States and Territories[2]

Month	# of IACs Required to Screen[3]	# of MAWB Screened	Weight Screened (lbs)
April 2009	139	37,511	39,557,400
May 2009	178	21,893	26,752,257
June 2009	226	20,780	33,503,282
FY 2009 Q3	226	80,184	99,812,939
FY 2009 Q2	0	48,315	70,766,249

CCSF (Nou-IAC) Shipments Uplifted on Flights Originating Within the United States and Territories[4]

Month	# of Non-IACs Required to Screen[5]	# of HAWB* Screened	Weight Screened (lbs)
April 2009	5	5,217	2,344,408
May 2009	30	3,646	2,212,500
June 2009	43	23,059	1,751,159
FY 2009 Q3	43	31,922	6,308,067
FY 2009 Q2	0	2,808	4,751,157

*HAWB stands for House Air Way Bill

[2] These data are included in cargo data reported by air carriers.
[3] IACs must screen 90 days after certification. The data collected for the *# of CCSF IACs Required to Screen* in this table are per CCSF facility.
[4] These data are included in cargo data reported by air carriers.
[5] Non-IAC CCSFs must screen 90 days after certification. The data collected for the *# of CCSF (Non-IACs) Required to Screen* in this table are per CCSF facility.

D. International LPD Screened Cargo

1. International Inbound (Last Point of Departure into the U.S.)[6]

Month	Weight Tendered (lbs)	Weight Screened (lbs)	Percentage of Pounds Screened
April 2008	277,712,163	148,894,104	54%
May 2008	267,929,770	143,077,452	53%
June 2008	267,190,938	145,163,452	54%
Q3 FY 2008 Total	812,832,871	437,135,008	54%
Q2 FY 2008 Total	543,804,590	299,132,083	55%

Historically, air carriers were not required to report cargo screening data for flights entering the United States from an international last point of departure (LPD). Nonetheless, an analysis of historical data from the Bureau of Transportation Statistics (BTS) suggests that more than 50 percent of cargo entering the United States from international LPDs is screened prior to uplift. BTS data provides insight into the amount of cargo entering the United States aboard passenger aircraft by weight.

TSA has calculated an estimated percentage of screened inbound cargo by LPD country. The estimated percentages assigned to individual countries are based upon data from several sources including: TSA international cargo inspectors, TSA representatives and discussions with foreign government officials.

BTS statistics from April, May and June 2008 indicate that approximately 812,832,871 pounds of air cargo entered the United States aboard passenger aircraft. It is estimated that approximately 437,135,008 pounds of total cargo were screened prior to uplift from its LPD country. On the basis of this data and the current estimated cargo screening percentage for each LPD country, it is estimated that 54 percent of inbound air cargo by weight is screened.

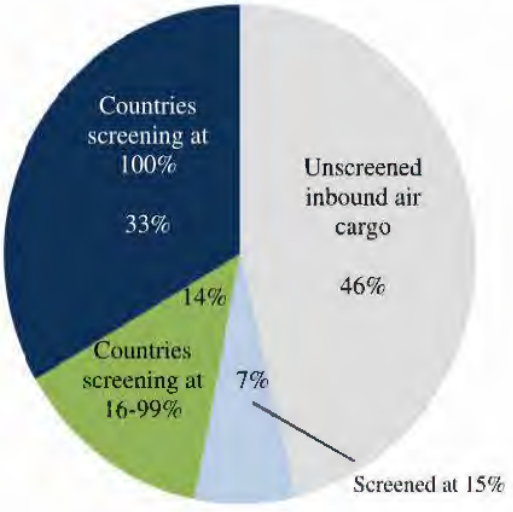
TSA is in the process of addressing data points that are currently unavailable and is preparing to require cargo screening reporting from air carriers at international LPDs beginning in spring 2010. TSA is also working with the U.S. Customs and Border Protection to gain access to real-time inbound cargo data. Coupled with screening reporting data, TSA will have increasingly reliable information on international inbound air cargo in the future.

[6] 2008 air carrier reporting data from Bureau of Transportation Statistics (BTS). FY 2009 third quarter data will not be available until June 2010.

2. April, May and June 2008 International Screening Statistics[7]

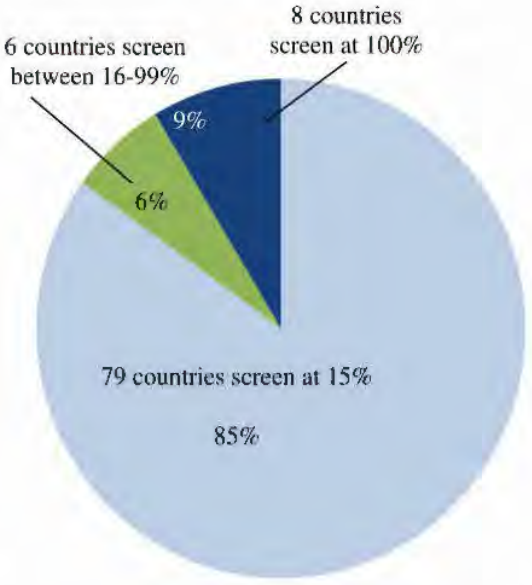
Volume (lbs)

Of the approximately 813 million pounds of air cargo entering the U.S., 54% was screened by weight.



Number of Countries

93 countries were last points of departure for inbound air cargo.



[7] 2008 air carrier reporting data from Bureau of Transportation Statistics (BTS). FY 2009 third quarter data will not be available until June 2010.

IV. Appendices

A. Cargo Screening Data by Cat X, I and Air Carrier

Cat X,I Compliance	Total Uplifted	Total Screened	%Total Screened
#MAWB	1,320,596	1,038,110	78.6%
Cargo Weight (LBS)	652,260,558	407,116,171	62.4%

BY AIRPORT CATEGORY X,I AND AIR CARRIERS
TSA CARGO SCREENING RESULTS ON 50%, 100% REPORTING BY PASSENGER AIR CARRIERS

Reporting Period: FY2009-Q3
Data included in report by carriers submitting usable data to TSA.
Today's Date: August 4, 2009

MAWB Sorted by cargo weight (in pounds) uplifted by air carrier.
Total MAWB Screened = MAWB Screened at 100% + (MAWB Screened at 50% x 0.5)
Total LBS Screened = Weight of MAWB Screened at 100% + (Weight of MAWB Screened at 50% x 0.5)

Airport Code	Airport Name	Carrier Name	MAWB Uplifted	LBS Uplifted	MAWB 100%	LBS 100%	MAWB 50%	LBS 50%	MAWB Screened	LBS Screened	% MAWB	% LBS
Grand Total			1,320,596	652,260,558	1,014,355	371,592,704	47,509	71,046,935	1,038,110	407,116,171	78.61%	62.42%

(b)(3):49 U.S.C. § 114(r)

Airport Code	Airport Name	Carrier Name	MAWB Uplifted	LBS Uplifted	MAWB 100%	LBS 100%	MAWB 50%	LBS 50%	MAWB Screened	LBS Screened	% MAWB	% LBS

(b)(3):49 U.S.C. § 114(r)

Airport Code	Airport Name	Carrier Name	MAWB Uplifted	LBS Uplifted	MAWB 100%	LBS 100%	MAWB 50%	LBS 50%	MAWB Screened	LBS Screened	% MAWB	% LBS

(b)(3):49 U.S.C. § 114(r)

Airport Code	Airport Name	Carrier Name	MAWB Uplifted	LBS Uplifted	MAWB 100%	LBS 100%	MAWB 50%	LBS 50%	MAWB Screened	LBS Screened	% MAWB	% LBS

(b)(3):49 U.S.C. § 114(r)

Airport Code	Airport Name	Carrier Name	MAWB Uplifted	LBS Uplifted	MAWB 100%	LBS 100%	MAWB 50%	LBS 50%	MAWB Screened	LBS Screened	% MAWB	% LBS

(b)(3):49 U.S.C. § 114(r)

Airport Code	Airport Name	Carrier Name	MAWB Uplifted	LBS Uplifted	MAWB 100%	LBS 100%	MAWB 50%	LBS 50%	MAWB Screened	LBS Screened	% MAWB	% LBS

(b)(3):49 U.S.C. § 114(r)

Airport Code	Airport Name	Carrier Name	MAWB Uplifted	LBS Uplifted	MAWB 100%	LBS 100%	MAWB 50%	LBS 50%	MAWB Screened	LBS Screened	% MAWB	% LBS

(b)(3):49 U.S.C. § 114(r)

B. Percentage of Total Inbound PAX Cargo Screened Third Quarter FY 2008

April, May, June 2008 % of TOTAL Inbound PAX Cargo Screened	54.0%

Screened (%)	Country	April 2008 Inbound PAX Cargo (lbs)	April 2008 Screened (lbs)	May 2008 Inbound PAX Cargo (lbs)	May 2008 Screened (lbs)	June 2008 Inbound PAX Cargo (lbs)	June 2008 Screened (lbs)	Q3 Inbound PAX Cargo (lbs)	Q3 Screened (lbs)
(b)(3):49 U.S.C. § 114(r)									

Screened (%)	Country	April 2008 Inbound PAX Cargo (lbs)	April 2008 Screened (lbs)	May 2008 Inbound PAX Cargo (lbs)	May 2008 Screened (lbs)	June 2008 Inbound PAX Cargo (lbs)	June 2008 Screened (lbs)	Q3 Inbound PAX Cargo (lbs)	Q3 Screened (lbs)
(b)(3):49 U.S.C. § 114(r)									

Screened (%)	Country	April 2008 Inbound PAX Cargo (lbs)	April 2008 Screened (lbs)	May 2008 Inbound PAX Cargo (lbs)	May 2008 Screened (lbs)	June 2008 Inbound PAX Cargo (lbs)	June 2008 Screened (lbs)	Q3 Inbound PAX Cargo (lbs)	Q3 Screened (lbs)

(b)(3):49 U.S.C. § 114(r)

Screened (%)	Country	April 2008 Inbound PAX Cargo (lbs)	April 2008 Screened (lbs)	May 2008 Inbound PAX Cargo (lbs)	May 2008 Screened (lbs)	June 2008 Inbound PAX Cargo (lbs)	June 2008 Screened (lbs)	Q3 Inbound PAX Cargo (lbs)	Q3 Screened (lbs)
(b)(3):49 U.S.C. § 114(r)									

Screened (%)	Country	April 2008 Inbound PAX Cargo (lbs)	April 2008 Screened (lbs)	May 2008 Inbound PAX Cargo (lbs)	May 2008 Screened (lbs)	June 2008 Inbound PAX Cargo (lbs)	June 2008 Screened (lbs)	Q3 Inbound PAX Cargo (lbs)	Q3 Screened (lbs)
(b)(3):49 U.S.C. § 114(r)									

Screened (%)	Country	April 2008 Inbound PAX Cargo (lbs)	April 2008 Screened (lbs)	May 2008 Inbound PAX Cargo (lbs)	May 2008 Screened (lbs)	June 2008 Inbound PAX Cargo (lbs)	June 2008 Screened (lbs)	Q3 Inbound PAX Cargo (lbs)	Q3 Screened (lbs)

(b)(3):49 U.S.C. § 114(r)

SENSITIVE SECURITY INFORMATION

Air Cargo Screening Statistics

Fiscal Year 2009 Report to Congress
Fourth Quarter
March 25, 2010

Homeland Security

Transportation Security Administration

Message from the Acting Administrator

March 25, 2010

I am pleased to present the following report "Air Cargo Screening Statistics, Fourth Quarter" prepared by the Transportation Security Administration (TSA).

This report was compiled pursuant to the language set forth in Section 515 of the Fiscal Year 2009 Department of Homeland Security Appropriations Act (P.L. 110-329), which specifically requires TSA to submit screening statistics to Congress quarterly. P.L. 110-329 also requires TSA to report the amount of cargo screened at each airport by each passenger air carrier. Statistics included in this report are derived from data reported by the air carriers in the months of July, August and September 2009.

Section 1602 of the *Implementing Recommendations of the 9/11 Commission Act of 2007* (P.L. 110-53) mandates that 50 percent of cargo placed on passenger aircraft is screened not later than February 3, 2009, and that 100 percent of cargo placed on passenger aircraft is screened not later than August 3, 2010. TSA is pleased to report that the February 2009 50 percent screening mandate has been met.

This report is being provided to the following Members of Congress:

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The Honorable Robert C. Byrd
Chairman, Senate Appropriations Subcommittee on Homeland Security

The Honorable George V. Voinovich
Ranking Member, Senate Appropriations Subcommittee on Homeland Security

Inquiries relating to this report may be directed to me at (571) 227-(b)(6) or to the Department's Acting Chief Financial Officer, Peggy Sherry, at (b)(6)

Sincerely yours,

Gale D. Rossides
Acting Administrator

Executive Summary

This document is the Transportation Security Administration's (TSA's) 11th submission of the congressional requirement for air cargo screening statistics, as required by Section 515 of the Fiscal Year (FY) 2009 *Consolidated Security, Disaster Assistance, and Continuing Appropriations Act* (P.L. 110-329).

The Fourth Quarter FY 2009 air cargo screening report includes a variety of statistics that identify the volume of air cargo accepted and screened, as reported by passenger air carriers and evaluated by TSA. Specifically, the report summarizes the following information:

1) Air cargo screening statistics from regulated domestic and foreign air carriers. This information encompasses all data, figures and diagrams for the months of July, August, and September 2009. Specifically, the data focus on cargo uplifted on flights originating within the United States/territories and cargo uplifted on inbound flights originating outside the United States/territories. The total percentage of cargo screened on flights originating within the United States during this reporting period is 62 percent by weight and 77 percent by Master Air Way Bill (MAWB).

2) Air cargo screening statistics relating to Indirect Air Carriers (IACs), shippers and other entities certified by TSA to screen cargo for uplift on domestic passenger flights. These Certified Cargo Screening Facilities (CCSF) report cargo screening data to TSA pursuant to their program requirements. During this period, 322 CCSF-IACs were required to screen. The weight screened by CCSF-IACs is 160 million pounds, while the number of MAWBs screened during this period is 117,897.

3) Inbound cargo from international last points of departure. TSA currently uses an analysis of historical data from the Bureau of Transportation Statistics (BTS) to estimate this statistic. Because BTS data lag significantly behind the reporting period, TSA uses data from the same period of the previous calendar year. The BTS data provide insight into the amount of cargo entering the United States aboard passenger aircraft by weight. During this period, BTS data show that 438 million pounds of cargo were transported on international flights inbound to the United States. The percentage of weight screened on these flights is estimated to be 56 percent during this period.

Air Cargo Screening Statistics
Fourth Quarter Fiscal Year 2009

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I. Legislative Language

This document complies with the language set forth in Section 515(d) of the Fiscal Year (FY) 2009 Department of Homeland Security (DHS) Appropriations Act (P.L. 110-329), which states:

> Not later than 45 days after the end of each quarter, the Assistant Secretary (Transportation Security Administration) shall submit to the Committees on Appropriations of the Senate and the House of Representatives a report on air cargo inspection statistics by airport and air carrier detailing the incremental progress being made to meet section 44901(g)(2) of title 49, United States Code.

II. Background

P.L. 109-295, signed on October 4, 2006, states that Transportation Security Administration (TSA) "... shall report air cargo screening statistics quarterly to the committees on Appropriations of the Senate and the House of Representatives, by airport and passenger air carrier..." The reporting requirement is continued by language in Section 515(d) of P.L. 110-329.

To implement the congressional mandate, TSA has issued a series of Security Directives, Emergency Amendments and updates to air carrier security programs requiring air carriers to submit cargo statistics monthly. The statistics derived from these submissions are the basis for TSA's report to Congress. In addition to the recent 50 percent cargo screening requirement, TSA has further secured the air cargo environment by requiring the screening of 100 percent of cargo placed on passenger aircraft at smaller commercial Category II-IV airports throughout the United States and its territories. TSA has also mandated 100 percent screening of cargo identified as elevated risk within the U.S. air cargo supply chain and required that sensitive cargo be subject to alternative security measures. In October 2008, TSA mandated the screening of 100 percent of cargo placed on narrow-body aircraft departing from the United States and its territory airports.

III. TSA Air Cargo Screening Statistics Report

A. Fourth Quarter FY 2009 Screening Summary

Pursuant to the language set forth in Section 515(d) of P.L. 110-329, TSA hereby submits air cargo screening data for the fourth quarter of FY 2009.

Cargo Uplifted on Flights Originating Within the United States and Territories

Month	% Cargo Screened by Weight	% Cargo Screened by Shipment (MAWB)*
July 2009	62%	77%
August 2009	62%	77%
September 2009	61%	76%
4th Quarter FY 2009 Total	62%	77%
3rd Quarter FY 2009 Total	62%	77%

* MAWB = Master Air Way Bill

Cargo Uplifted on Inbound Flights Originating Outside the United States and Territories[1]

Month	Weight Tendered (lbs)	Weight Screened (lbs)	Percentage of Pounds Screened
July 2008	272,084,297	150,276,478	55%
August 2008	265,186,608	148,696,071	56%
September 2008	250,849,702	138,549,483	55%
4th Quarter FY 2008 Total	788,120,607	437,522,032	56%
3rd Quarter FY 2008 Total	812,832,871	437,135,008	54%

[1] 2008 air carrier reporting data are from the Bureau of Transportation Statistics. FY 2009 third quarter data will not be available until June 2010.

B. Domestic Air Carrier Statistics – All Airports

Air carriers, operating domestically, reported cargo screening data to TSA, pursuant to their security programs. An analysis of these data verifies that the February 2009 50 percent screening mandate has been achieved and sustained. A summary of these statistics appears below:

Cargo Uplifted on Flights Originating Within the United States and Territories

Month	# of MAWB Uplifted	Weight Uplifted (lbs)	# of MAWB Screened	Weight Screened (lbs)
July 2009	482,969	232,769,095	372,820	144,008,514
August 2009	473,664	240,174,378	365,237	147,931,375
September 2009	469,565	244,774,992	357,021	150,303,170
4th Quarter FY 2009 Total	1,426,198	717,718,465	1,095,078	442,243,059
3rd Quarter FY 2009 Total	1,405,295	662,905,248	1,086,568	410,937,786

4th Quarter FY 2009

77 percent of MAWB screened
62 percent of weight screened

Cargo Screening Distribution for July, August and September 2009

(b)(3):49 U.S.C. § 114(r)

C. Domestic Certified Cargo Screening Program (CCSP)

IACs, shippers and other entities screening cargo for uplift on domestic passenger flights as Certified Cargo Screening Facilities (CCSFs) also reported cargo screening data to TSA, pursuant to their program/order requirements. A summary of these data appears below. These numbers are included in cargo data reported by air carriers.

CCSF-IAC Shipments Uplifted on Flights Originating Within the United States and Territories[2]

Month	# of IACs Required to Screen[3]	# of MAWB Screened	Weight Screened (lbs)
July 2009	286	44,764	50,266,267
August 2009	303	35,882	52,507,664
September 2009	322	37,251	56,802,780
4th Quarter FY 2009 Total	322	117,897	159,576,711
3rd Quarter FY 2009 Total	226	80,184	99,812,939

CCSF (Non-IAC) Shipments Uplifted on Flights Originating Within the United States and Territories[4]

Month	# of Non-IACs Required to Screen[5]	# of House Air Way Bills Screened	Weight Screened (lbs)
July 2009	60	14,588	2,931,862
August 2009	82	3,716	1,206,320
September 2009	92	4,766	2,985,973
4th Quarter FY 2009 Total	92	23,070	7,124,155
3rd Quarter FY 2009 Total	43	31,922	6,308,067

[2] These data are included in cargo data reported by air carriers.
[3] IACs must screen 90 days after certification. The data collected for the *# of CCSF IACs Required to Screen* in this table are per CCSF facility.
[4] These data are included in cargo data reported by air carriers.
[5] Non-IAC CCSFs must screen 90 days after certification. The data collected for the *# of CCSF (Non-IACs) Required to Screen* in this table are per CCSF facility.

D. International Last Point of Departure Screened Cargo

International Inbound—Last Point of Departure (LPD) into the United States[6]

Month	Weight Tendered (lbs)	Weight Screened (lbs)	Percentage of Pounds Screened
July 2008	272,084,297	150,276,478	55%
August 2008	265,186,608	148,696,071	56%
September 2008	250,849,702	138,549,483	55%
4th Quarter FY 2009 Total	788,120,607	437,522,032	56%
3rd Quarter FY 2009 Total	812,832,871	437,135,008	54%

Historically, air carriers were not required to report cargo screening data for flights entering the United States from an international LPD. Nonetheless, an analysis of historical data from the Bureau of Transportation Statistics (BTS) indicates that more than 50 percent of cargo entering the United States from international LPDs is screened before uplift. BTS data provide insight into the amount of cargo entering the United States aboard passenger aircraft by weight.

TSA has calculated an estimated percentage of screened inbound cargo by LPD country. The estimated percentages assigned to individual countries are based on data from several sources, including TSA international cargo inspectors, TSA representatives and discussions with foreign government officials.

BTS statistics from July, August and September 2008 indicate that approximately 788,120,607 pounds of air cargo entered the United States aboard passenger aircraft. It is estimated that approximately 437,522,032 pounds (56 percent) of total cargo were screened before uplift from its LPD country.

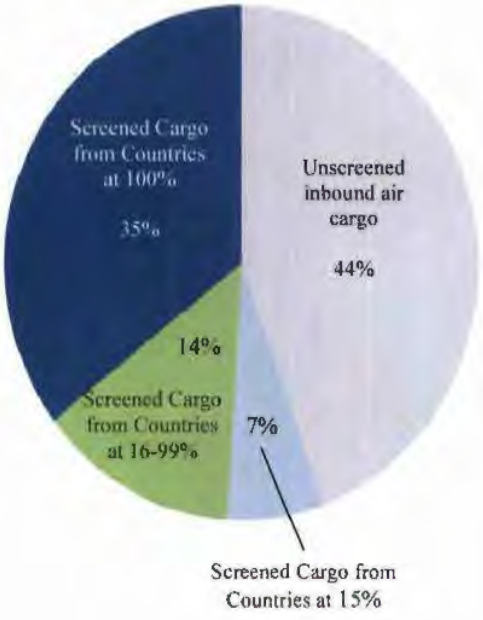
TSA is in the process of addressing data points that are currently unavailable and is preparing to require cargo screening reporting from air carriers at international LPDs beginning in the spring of 2010. TSA is also working with the U.S. Customs and Border Protection (CBP) to gain access to real-time inbound cargo data. Coupled with screening reporting data, TSA will have increasingly reliable information on international inbound air cargo in the future.

[6] 2008 air carrier reporting data are from the Bureau of Transportation Statistics. FY 2009 third quarter data will not be available until June 2010.

July, August, and September 2008 Screening Statistics for last point of departure flights[7]

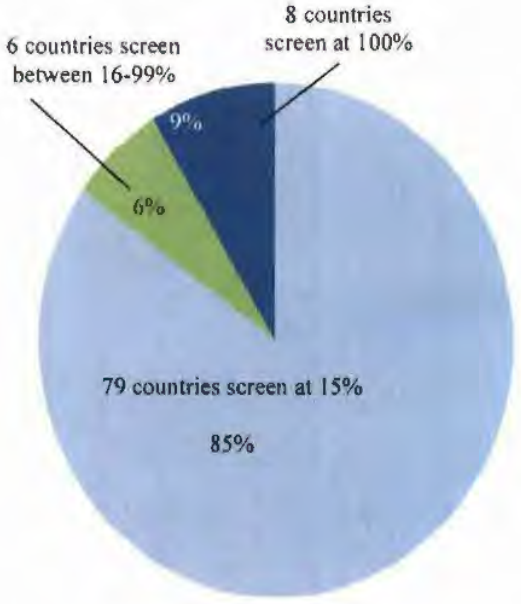
Volume (lbs)

Of the approximately 788 million pounds of air cargo entering the United States, 56 percent was screened by weight.



Number of Countries

93 countries were last points of departure for inbound air cargo.



[7] 2008 air carrier reporting data are from BTS. FY 2009 third quarter data will not be available until June 2010.

IV. Appendices

A. Cargo Screening Data by Category X, I and Air Carrier

4th Quarter Compliance at Category X, I	Total Uplifted	Total Screened	%Total Screened
# MAWB	1,344,292	1,048,660	78.0%
Cargo Weight (lbs)	706,271,068	438,546,463	62.1%

BY AIRPORT CATEGORY X, I AND AIR CARRIERS
TSA CARGO SCREENING RESULTS ON 50%, 100% REPORTING BY PASSENGER AIR CARRIERS

Reporting Period: FY2009 4th Quarter
Data included in report by carriers submitting usable data to TSA
Today's Date: November 24, 2009

**MAWB Screened = MAWB Screened at 100 percent + (MAWB Screened at 50 percent x 0.5)
**lbs Screened = Pounds of MAWB Screened at 100 percent + (Pounds of MAWB Screened at 50 percent x 0.5)
Sorted by cargo weight (lbs) uplifted and view of the top five airports and top five carriers at those stations with subtotals displayed.

Airport Code	Airport Name	Carrier Name	MAWB Uplifted	LBS Uplifted	MAWB 100%	LBS 100%	MAWB 50%	LBS 50%	**MAWB Screened	**LBS Screened	%MAWB	%LBS
Grand Total			1,344,292	706,271,068	1,026,065	394,002,817	45,190	89,087,290	1,048,660	438,546,463	78.01%	62.09%

(b)(3):49 U.S.C. § 114(r)

Airport Code	Airport Name	Carrier Name	MAWB Uplifted	LBS Uplifted	MAWB 100%	LBS 100%	MAWB 50%	LBS 50%	**MAWB Screened	**LBS Screened	%MAWB	%LBS

(b)(3):49 U.S.C. § 114(r)

Airport Code	Airport Name	Carrier Name	MAWB Uplifted	LBS Uplifted	MAWB 100%	LBS 100%	MAWB 50%	LBS 50%	**MAWB Screened	**LBS Screened	%MAWB	%LBS

(b)(3):49 U.S.C. § 114(r)

Airport Code	Airport Name	Carrier Name	MAWB Uplifted	LBS Uplifted	MAWB 100%	LBS 100%	MAWB 50%	LBS 50%	**MAWB Screened	**LBS Screened	%MAWB	%LBS

(b)(3):49 U.S.C. § 114(r)

Airport Code	Airport Name	Carrier Name	MAWB Uplifted	LBS Uplifted	MAWB 100%	LBS 100%	MAWB 50%	LBS 50%	**MAWB Screened	**LBS Screened	%MAWB	%LBS

(b)(3):49 U.S.C. § 114(r)

Airport Code	Airport Name	Carrier Name	MAWB Uplifted	LBS Uplifted	MAWB 100%	LBS 100%	MAWB 50%	LBS 50%	**MAWB Screened	**LBS Screened	%MAWB	%LBS

(b)(3):49 U.S.C. § 114(r)

B. Percentage of Total Inbound International Passenger Cargo Screened Fourth Quarter FY 2008

July, August, September 2008 % of TOTAL Inbound PAX Cargo Screened	56.0%

Screened (%)	Country	July 2008 Inbound PAX Cargo (lbs)	July 2008 Screened (lbs)	August 2008 Inbound PAX Cargo (lbs)	August 2008 Screened (lbs)	September 2008 Inbound PAX Cargo (lbs)	September 2008 Screened (lbs)	Total Q4 Inbound PAX Cargo (lbs)	Total Q4 Screened (lbs)
(b)(3):49 U.S.C. § 114(r)									

Screened (%)	Country	July 2008 Inbound PAX Cargo (lbs)	July 2008 Screened (lbs)	August 2008 Inbound PAX Cargo (lbs)	August 2008 Screened (lbs)	September 2008 Inbound PAX Cargo (lbs)	September 2008 Screened (lbs)	Total Q4 Inbound PAX Cargo (lbs)	Total Q4 Screened (lbs)
(b)(3):49 U.S.C. § 114(r)									

Screened (%)	Country	July 2008 Inbound PAX Cargo (lbs)	July 2008 Screened (lbs)	August 2008 Inbound PAX Cargo (lbs)	August 2008 Screened (lbs)	September 2008 Inbound PAX Cargo (lbs)	September 2008 Screened (lbs)	Total Q4 Inbound PAX Cargo (lbs)	Total Q4 Screened (lbs)
(b)(3):49 U.S.C. § 114(r)									

Screened (%)	Country	July 2008 Inbound PAX Cargo (lbs)	July 2008 Screened (lbs)	August 2008 Inbound PAX Cargo (lbs)	August 2008 Screened (lbs)	September 2008 Inbound PAX Cargo (lbs)	September 2008 Screened (lbs)	Total Q4 Inbound PAX Cargo (lbs)	Total Q4 Screened (lbs)

(b)(3):49 U.S.C. § 114(r)

Screened (%)	Country	July 2008 Inbound PAX Cargo (lbs)	July 2008 Screened (lbs)	August 2008 Inbound PAX Cargo (lbs)	August 2008 Screened (lbs)	September 2008 Inbound PAX Cargo (lbs)	September 2008 Screened (lbs)	Total Q4 Inbound PAX Cargo (lbs)	Total Q4 Screened (lbs)
(b)(3):49 U.S.C. § 114(r)									

Screened (%)	Country	July 2008 Inbound PAX Cargo (lbs)	July 2008 Screened (lbs)	August 2008 Inbound PAX Cargo (lbs)	August 2008 Screened (lbs)	September 2008 Inbound PAX Cargo (lbs)	September 2008 Screened (lbs)	Total Q4 Inbound PAX Cargo (lbs)	Total Q4 Screened (lbs)
(b)(3):49 U.S.C. § 114(r)									
	TOTAL	272,084,297	150,276,478	265,186,608	148,696,071	250,849,702	138,549,483	788,120,607	437,522,032

SENSITIVE SECURITY INFORMATION

Screening of Passengers by Observation Techniques

Fiscal Year 2010 Report to Congress

March 15, 2010

Homeland Security

Transportation Security Administration

SENSITIVE SECURITY INFORMATION

Message from the Acting Administrator

March 15, 2010

I am pleased to present the following report, "Screening of Passengers by Observation Techniques," which has been prepared by the Transportation Security Administration.

Pursuant to congressional requirements, this report is being provided to the following Members of Congress:

The Honorable David E. Price
Chairman, House Appropriations Subcommittee on Homeland Security

The Honorable Harold Rogers
Ranking Member, House Appropriations Subcommittee on Homeland Security

The Honorable Robert Byrd
Chairman, Senate Appropriations Subcommittee on Homeland Security

The Honorable George V. Voinovich
Ranking Member, Senate Appropriations Subcommittee on Homeland Security

Inquiries relating to this report may be directed to me at (571) 227-(b)(6) or to the Department's Acting Chief Financial Officer, Peggy Sherry, at (b)(6)

Sincerely,

Gale D. Rossides
Acting Administrator
Transportation Security Administration

Executive Summary

The Transportation Security Administration's (TSA) Screening of Passengers by Observation Techniques (SPOT) program is a behavior observation and analysis program in which personnel are trained to identify anomalous behaviors that deviate from an established environmental baseline. SPOT is implemented in domestic airports through fielding Behavior Detection Officers (BDO) (i.e., specifically trained and certified Transportation Security Officers). This report provides a background of the program, from inception to current state, and explains how the program provides an additional layer of security vital to the successful protection of the Nation's transportation systems, and supports the Department of Homeland Security mission to "prevent and deter terrorist attacks and protect against and respond to threats and hazards to the nation …."[1] This report addresses the legislative requirement outlined in Section I of this document.

TSA developed and implemented the SPOT program based on behavior pattern recognition techniques utilized by law enforcement organizations and verified by scientific research. TSA is closely monitoring the effectiveness of the SPOT program and implementing measures to improve the performance of BDOs individually and the program as a whole.

The program fulfills the mandate outlined in Section 1611 of the Implementing Recommendations of the 9/11 Commission Act, P.L. 110-53, 121 Stat. 485, Aug. 3, 2007, (9/11 Act) (codified at 49 U.S.C. §114 (note):

> [TSA] shall provide advanced training to transportation security officers for the development of specialized security skills, including behavior observation and analysis… in order to enhance the effectiveness of layered transportation security measures.

Additionally, the SPOT program complies with Title 49, United States Code, Section 114:

- Paragraph (d) gives TSA responsibility for security in all modes of transportation.
- Paragraph (f) requires that TSA:
  - Develop policies, strategies, and plans for dealing with threats to transportation security;
  - Coordinate countermeasures with appropriate departments and agencies;
  - Oversee the implementation, and ensure the adequacy, of security measures at airports and other transportation facilities; and
  - Enforce security-related regulations and requirements.

[1] Homeland Security Act of 2002, P.L. No. 107-296 (2002), § 101.

Screening of Passengers by Observation Techniques

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I. Legislative Language

This document complies with the reporting language set forth in Senate Report 111-31 and House Report 111-298 that accompanied the Fiscal Year (FY) 2010 Department of Homeland Security Appropriations Act (P.L. 111-83). These directives state that:

From Senate Report 111-31, page 57:

> The Committee directs TSA to report, no later than 60 days after the date of enactment of this act, on: (1) the scientific basis for using behavior pattern recognition techniques to observe airline passengers for signs of hostile intent; (2) the effectiveness of the SPOT program in meeting its goals and objectives; and (3) the justification for expanding the program. The report shall be made in a classified or unclassified format, as appropriate.

From House Report 111-298, page 77:

> As discussed in the Senate report, no later than 60 days after the date of enactment of this Act, TSA shall report on the scientific basis for using behavior pattern recognition for observing airline passengers for signs of hostile intent, the effectiveness of this program in meeting its goals and objectives, and the justification for expanding the program.

II. Background

Since 2001, the Transportation Security Administration (TSA) has been mandated by law to, among other things, be responsible for day-to-day federal screening operations to enhance security of passenger air transportation. TSA is most visibly present through its approximately 47,000 trained and certified Transportation Security Officers (TSOs) stationed at more than 450 airports across the country. These professionals screen approximately two million passengers daily and deliver both world-class security and customer service at the Nation's airports.

Recognizing the unique security requirements that post-9/11 presented, TSA developed a non-obtrusive score-based behavior security assessment program called Screening of Passengers by Observation Techniques (SPOT). SPOT is a program designed for passive observation by TSA personnel, typically in front of the security checkpoint, to identify potentially high-risk passengers exhibiting anomalous behaviors that deviate from an established environmental baseline, to include behavior cues associated with the fear of discovery. Passengers identified as displaying such behaviors are then referred for additional screening and/or directed for Law Enforcement Officer (LEO) intervention. SPOT provides Federal Security Directors with an additional layer of security based on proven behavior observation and analysis techniques, to make timely security risk assessments. TSOs certified in SPOT are known as Behavior Detection Officers (BDO).

In 2003, TSA initiated a study on the feasibility of an additional security measure to identify suspect travelers in airports using Behavior Recognition and Analysis (BR&A). Law enforcement, security agencies, and academia have acknowledged for decades that all individuals, no matter their race, gender, age, or religion, may exhibit particular behaviors when in situations of stress, fear and/or deception. Likewise, individuals pursuing illegal, dangerous, or possibly terrorist activities may unintentionally exhibit such behaviors in the process of accomplishing their objective. The ability to recognize such behaviors increases the potential for identifying those individuals.

BR&A is a highly successful security measure that has been employed by Israeli security services for at least thirty years. After the terrorist attacks of 9/11, BR&A concepts were adapted and modified by the Massachusetts State Police (MSP) Troop F assigned to Logan International Airport (BOS). MSP named this program Behavior Assessment Screening System and trained all LEOs assigned to BOS in its use as an enhanced security measure to the newly instituted security checkpoint screening system of TSA.

The unique SPOT program was developed by TSA, with assistance from MSP, to meet TSA-specific security and public service needs, with particular emphasis on the protection of individual civil rights, privacy, and to mitigate the possibility of racial profiling. SPOT is the only program that uses a behavior scoring system that assigns a numerical value to passenger

behaviors and then uses the score(s) to determine the type of risk mitigation response (e.g., additional screening and/or LEO intervention). Other BR&A programs use behavior recognition, but rely on a lower threshold to trigger suspicion and a more intrusive and lengthy interview process that is impractical in the U.S. commercial aviation environment and also raises legal concerns. The SPOT scoring system has the following advantages over other BR&A programs:

- Allows for the use of a two-tiered response to high-risk passengers using additional screening and/or direct LEO intervention, based upon the passenger's scores;
- Ensures that only the highest-risk passengers are subjected to higher, more intrusive scrutiny thereby maximizing limited resources;
- Helps minimize or prevent screener subjective-based assessments of risk that could be based on flawed assumptions or racial/ethnic bias, by utilizing *objective* criteria that ensure uniform and unbiased results and that must be documented;
- Partners BDOs to perform SPOT in pairs in order to validate each others' observation and to prevent the use of unlawful racial/ethnic profiling; and
- Uses a quantitative, non-biographical behavior based tracking system that will help prevent unlawful racial/ethnic profiling, thus defending the program from claims of unlawful profiling. It also allows the program to be fine-tuned periodically to ensure optimal results.

In order for SPOT to be the most effective, TSA and local law enforcement must work together in a coordinated response to high-risk passengers. This approach:

- Maximizes the effectiveness of the LEO and TSA elements at the airport or other transportation facility through a teamwork concept in which each component has clearly identified responsibilities; and
- Ensures that the highest-risk passengers are interviewed and evaluated by a LEO.

Operational test-bed assessment of the SPOT program began in 2003 at Logan International Airport (BOS) in Boston, Massachusetts. A SPOT working group was created in February 2004, comprised of various TSA and DHS components (including offices of Civil Rights, Chief Counsel, Privacy, Policy and Tech Lab), MSP, the FBI Behavioral Sciences Unit and the Federal Law Enforcement Training Center. Through the working group, SPOT standard operating procedures for both aviation and mass transit venues were developed and finalized.

In October 2004, pilot programs were initiated at Portland International Jetport (PWM) in Portland, Maine and T.F. Green Airport (PVD) in Providence, Rhode Island. In October 2005, pilot programs were initiated at Minneapolis/St. Paul International Airport (MSP) in Minneapolis, Minnesota and Bangor International Airport (BGR) in Bangor, Maine. Eight additional airports began performing SPOT as a pilot program from 2005 to 2006. In FY 2007, SPOT became an "official" program with FTE specifically allotted for BDOs.

III. Discussion

A. Scientific Basis for Using Behavior Pattern Recognition Techniques

Each of the behaviors the TSA Behavior Detection Officers are trained to observe is garnered from both the scientific and law enforcement community.

Dr. Paul Ekman, a leading expert in deception detection, performed an evaluation of the SPOT program in August 2006. The following conclusions are garnered from his document titled "Evaluation of the TSA SPOT Program by Paul Ekman, August 24, 2006":

1) I strongly endorse the SPOT program after having read their checklist and given recommendations about it, and observed the program in operation at [Boston] Logan airport last January.

2) The behavioral observations incorporated within SPOT are based on both law enforcement experience and the most recent scientific findings. In my judgment it involves NO element of racial or ethnic profiling.

Additionally, the work of Dr. David Givens, Director of the Center for Nonverbal Studies, was utilized in selecting the SPOT behaviors. Dr. Givens is recognized as an expert in nonverbal behavior who has worked with agencies within the intelligence and defense community to analyze non-verbal behavior cues of known terrorists. Behaviors outlined in his Nonverbal Dictionary were selected on the basis of their relationship to stress, fear and deception cues associated with the fear of discovery and integrated into the SPOT program.

Beginning in FY 2009, TSA introduced the Additional Behavior Detection Training course (ABDT) as an additional training tool for BDOs. ABDT is a two-day class emphasizing non-verbal behavioral detection. This class teaches BDOs how to recognize possible red flags in terms of deception that may manifest itself in micro-expressions and other non-verbal gross motor behavior movements. The main focus is with micro-expression detection during the Casual Conversation portion of the SPOT process and helps direct questions asked of the passenger in order to resolve the situation. The expressions emphasized in the course are universal, meaning that micro-expression detection is culturally independent.

TSA is also seeking additional training opportunities for Behavior Detection Officers. One initiative will provide BDOs and TSOs with continual on-line training in microfacial expression with an objective of providing BDOs and TSOs an additional detection tool that can help identify information indicating a potential security threat through recognition of deceptive behaviors. This information would allow TSOs to target their screening efforts more precisely through more directed searches or by requesting the assistance of a BDO to further understand the anomalous

behaviors. Because behavior detection is more threat-agnostic—it focuses on people rather than threat objects, which can and have changed to exploit vulnerabilities in our screening system—the capability will better enable the TSA screening workforce to identify existing and novel security threats introduced by a dynamic, adaptive adversary. This training is scheduled to be developed in FY 2010.

The SPOT Program has also begun a validation study of the program. This joint TSA-DHS study, being conducted by the American Institutes of Research (AIR), an independent not-for-profit organization, will evaluate the SPOT Program using a random protocol. This effort is the first such effort to validate a behavioral based security program in the world. The validation process will assess the base rates of screening by introducing a random component to the BDO process. In doing this, it measures the rate of BDO referrals compared to randomly selected passengers for screening. Based on the in-depth statistical analysis from the data collected, the determination of whether the BDO referral process is better, about the same, or less than a random process can be surmised. The end results will lead to a more precise understanding of the success of the program.

The validation process consists of systematically selecting individuals for random screening and completing a SPOT referral score sheet for each. The BDO will conduct SPOT screening for each randomly selected passenger regardless of their SPOT score. The end results will be collected for each person and can be compared to actual SPOT score sheets. The most important aspect in doing the validation study is to establish baseline false positive and false negative rates within the traveling public. False positives are those individuals who are screened using the SPOT process and are not a threat; those that are basically inconvenienced. False negatives are those individuals that are missed by the SPOT process and who do pose a security threat. These are the passengers we are most concerned about and want to increase their detection. The validation process using the randomly screening protocol will assess these rates and gather this data.

The study is being conducted at 24 airports nationwide. These vary in size, location and throughput in order to gain an overall understanding. All these locations have SPOT already in progress with experienced BDOs. The data collection process has already started.

B. Effectiveness of the SPOT Program in Meeting its Goals and Objectives

SPOT was designed to train Behavior Detection Officers in identifying anomalous behaviors that deviate from an established environmental baseline, with the ultimate goal of preventing an attack against the Nation's transportation systems. Through a cadre of approximately 3,000 certified BDOs, the program provides an additional layer of security to mitigate this threat. As previously stated, the program partners closely with the airport and other law enforcement entities in investigating and resolving suspicious activity reported by BDOs.

Although the program has lacked formal performance measures in the past, the program now has performance measures that it is currently utilizing and is working diligently to develop additional measures to quantify the effectiveness of the program. It is imperative to note that this program is a deterrent by nature and, as the courts have noted, "deterrence by definition results in the absence of data."[2] This lack of data has presented challenges for the SPOT program office when developing performance measures. The current performance measures are outlined in the following section.

The SPOT program office maintains a database of all passengers referred for additional SPOT screening by BDOs. This database does not contain any personally identifiable information on the passengers, but instead captures the behaviors of the passengers that led to the additional screening, as well as the resolution of the screening process (no further action taken, law enforcement notification, law enforcement investigation, arrested, reason for arrest, etc.). The SPOT program office monitors this data on no less than a weekly basis. Situation reports are generated from this data and distributed to TSA senior leadership as well as to individual airports on a weekly basis. Airports are then able to monitor the performance of their BDOs based on the information in the situation reports. The SPOT program office also sends out the "successes" of the program to the SPOT airports to inform them of the type of activity occurring at the airports. A sampling of SPOT successes is provided in this report (See Appendix 1). TSA uses all these reports to measure the effectiveness of the program in meeting its goals and objectives.

Additionally, TSA plans to migrate the SPOT database to TSA's Performance Management Information System (PMIS) in March 2010. Migrating the database will greatly enhance the SPOT program's capabilities. In its current configuration, only raw data can be gleaned from the SPOT database. Any manipulation of this data must be done manually. Under PMIS, data manipulation will be computerized and allow for more robust analyses. For example, we will be able to program trend analyses, better segregate data and create specific reports for certain data. We will be able to better track performance data at specific airports and categories of airports (threat or geographic location).

C. Justification for Expansion of the Program

The decision to expand SPOT nationwide to 161 of the Nation's highest-risk airports was one based on risk mitigation. TSA operates on a layered security approach, with the BDOs being one of the security layers. Each one of these layers alone is capable of stopping a terrorist attack. In combination, their security value is multiplied, creating a much stronger, formidable system. A terrorist who has to overcome multiple security layers in order to carry out an attack is more likely to be pre-empted, deterred or to fail. In addition, SPOT adds an additional measure of

[2] *MacWade v. Kelly*, 460 F.3d 260, 274 (2d Cir. 2006) ("The concept of deterrence need not be reduced to a quotient before a court may recognize a search program as effective. Indeed, expressing the phenomena in numeric terms often is impossible because deterrence by definition results in an absence of data.")

unpredictability, due to the fact they can be deployed almost anywhere and are not just confined to the footprint of the airport checkpoint.

In FY 2007, TSA made the decision to further deploy the program beyond the pilot phase beginning, and ensured this was done in a risk-based manner. For the initial nationwide deployment in FY 2007, SPOT utilized the Current Airport Threat Assessment (CATA) list of the 40 airports identified as the most at risk for a terrorist attack. TSA successfully deployed SPOT programs at all of those airports by the end of FY 2007, to include all CAT X airports. The SPOT program was expanded in FY 2008, to include all CAT X, CAT I, CAT II and one CAT III airport (St. Croix). For the reporting period of FY 2009, over 97 percent of the flying public transited these airports (more than 500 million passengers alone transited CAT X and CAT I airports), all of which have a SPOT program.

Additional BDO allocations have been required as new security programs and threats emerge. The initial BDO allocations during deployment of SPOT were to augment checkpoint security operations at the Nation's highest-risk airports. However, terrorists have demonstrated in recent years both a desire and ability to attack all modes of transportation. Examples include the Madrid train bombings of March 2004, the London bombings of July 2005 and the Glasgow Airport attack of 2007. Each of these attacks was focused on the transportation systems. Our Nation's transportation systems will continue to be a highly visible target for terrorists as well.

Recognizing this threat and as specifically authorized in Section 1303 of the 9/11 Act, 6 U.S.C. § 1112, TSA has developed Visible Intermodal Prevention and Response (VIPR) teams to augment security in any mode of transportation at many locations within the United States. These teams provide a security presence to deter, detect and prevent the carriage of explosives and any other items specified as threat items into a transportation access area or aboard a conveyance.

BDOs are utilized for VIPR team operations. The BDO resources needed to conduct these operations have been deployed from the airports. TSA has allocated additional BDOs to conduct SPOT in support of these operations so that airport coverage is not sacrificed.

IV. Independent Oversight and DHS Response

Beginning in May 2008, the Government Accountability Office (GAO) began conducting an audit of TSA's Behavior-Based Security Programs (*GAO Engagement 440715*) at the request of the Honorable John Mica, Ranking Member of the House Transportation and Infrastructure Committee. TSA has received two draft Statements of Facts and is currently awaiting a draft report. At this time, no final recommendations have been made to TSA as a result of this audit.

V. Conclusion

TSA will continue to explore ways to establish the SPOT Program as the benchmark behavior detection and analysis program in the world. Initiatives such as the scientific validation of the program and ongoing participation and collaboration with our partners in the behavior analysis community will continue to allow TSA to make progress toward this goal. We will continue to seek additional guidance from leading experts in the scientific, academic and law enforcement communities as we further develop the program.

VI. Appendix: SPOT Successes

4/1/08 – MCO - BDO Referral Arrested and Found with Pipe Bomb-making Materials - At 1220 hours on April 1, 2008, the Orlando Supervisory Transportation Security Officer reported that at 1210 hours, the BDO observed a passenger behaving suspiciously during the check-in process. The passenger presented his checked baggage to the Air Midwest Screening area and the BDOs referred the bags immediately for secondary screening. The BDOs continued observing the passenger and notified Orlando Police Department and the BAO. During checked baggage screening, the Transportation Security Officers (TSOs) detected suspicious items. During a (b)(3):49 U.S.C. § 114(r) bag search the TSOs discovered a 6-volt battery, wires, 2 end cap pipes with holes in them, lighter fluid, and literature detailing how to build explosives. The passenger was monitored via closed circuit television and BDOs continued to observe him as LEOs responded. LEOs located and interviewed the passenger who stated he admitted to having suspicious items in his carry-on backpack. LEOs and the Assistant Federal Security Director-Law Enforcement (AFSD-LE) evacuated the public area including the sidewalk, the ticket counter, and the checked baggage area in the north side of Terminal A at Level 3 and established a 300-foot perimeter. Air Jamaica advised that the passenger had checked two bags on the flight. The second checked bag was located at the Air Midwest Screening area and, upon screening two bottles, a blue liquid were discovered. The two bottles were explosives trace detection screened and tested positive (b)(3):49 U.S.C. § 1 As a precautionary measure, the Federal Security Director (FSD) dispatched BDOs throughout the terminals. TSA Certified K-9 teams were also patrolling the terminals. The Bomb Squad, the Federal Bureau of Investigation (FBI), and the Joint Terrorism Task Force responded. The Bomb Squad took possession of the passenger's carry-on bag and conducted a physical inspection. The items that were discovered consisted of an umbrella, a bag of chips, and a laptop computer. At 1509 hours, the passenger was cleared with negative findings, placed in a LEO vehicle, and placed in the custody of the FBI. At 1510 hours, the perimeter was reduced to allow the ticket counters and the North A sidewalk to resume operational. The FSD ordered rescreening of all the checked bags and conducted gate screening of the flight's passengers. Inbound aircraft Air Jamaica 81 (Montego Bay-Orlando) was met by TSA Certified K-9s, Customs and Border Protection (CBP), and BDOs. A security sweep of the aircraft was conducted before and after the flight was catered with negative findings. During the boarding process for Air Jamaica 80, the Aviation Direct Access Screening Program team, the TSI, and BDOs were placed in the Jetway and around the gate area. At 1529 hours, the Deputy Federal Security Director authorized the reopening of the Air Midwest checked baggage area and the BAO took possession of all items. At 2335 hours on April 1 the Orlando AFSD-LE reported that the FBI arrested the passenger on a charge of Attempting to Introduce an Explosive or Incendiary Device on an Aircraft (US Code 49 Sec. 46505).

3/11/08 - BOS - BDO Referral Linked to Travel Possibly Funded (b)(3):49 U.S.C. § 114(r) (b)(3):49 U.S.C. § 114(r) - At 1038 hours on March 11, a Boston BDO reported that at 1005 hours, two US Airways passengers were referred to secondary screening due to suspicious behaviors.

During secondary screening, both passengers' behaviors escalated to a threshold requiring a LEO intervention. TSOs notified Massachusetts State Police who responded and interviewed both passengers who did not give statements. Both passengers were allowed to continue on the flight, which did not incur a delay. There was no impact to airport operations or media attention. TSA's Office of Intelligence (TSA-OI) conducted government and commercial database checks on one passenger to include: (b)(3):49 U.S.C. § 114(r) National Crime Information Center (NCIC) wants/warrants/criminal history, National Law Enforcement Telecommunications System (NLETS), (b)(3):49 U.S.C. § 114(r) , and the Terrorist Identities Datamart Environment (TIDE) with negative results. (b)(3):49 U.S.C. § 114(r)

(b)(3):49 U.S.C. § 114(r)

3/13/08 – FLL - BDO Referral Arrested for Possession of 209 Grams of Ecstasy Worth $2.5 Million - At 0902 hours on March 13, 2008, a Fort Lauderdale Coordination Center Watch Officer reported that at 0656 hours, a BDO team referred a passenger to secondary screening due to suspicious behavior. During secondary screening, 209 grams of MDMA (Methylenedioxymethamphetamine) "Ecstasy" was discovered in the passenger's carry-on bag. Broward Sheriff's Office responded and arrested the passenger on a State charge of Trafficking MDMA.

3/25/08 - EWR – Two BDO Referrals Arrested as U.S. Army Deserters - At 1419 hours on March 25, 2008, a Newark BDO reported that at 1300 hours, two individuals were referred by BDOs for additional screening due to suspicious behavior. During secondary screening, both passengers admitted to being Army deserters. Newark Airport Police Department responded, arrested both passengers, and held them until the military police arrived to take them into custody.

4/23/08 - HNL – Three BDO Referrals Arrested for Possession of a Large Amount of Undeclared Currency with Traces of Illegal Drugs - At 2130 hours on April 23, 2008, a Honolulu Screening Manager reported that at 0610 hours on April 22, three passengers were referred for additional screening by BDOs due to suspicious behavior they exhibited. During secondary screening, $124,250 was detected artfully concealed taped to the bodies of the passengers and concealed in their carry-on baggage. LEOs and the Drug Enforcement Agency (DEA) responded and interviewed all three passengers who did not give statements. LEOs with K-9s inspected the money and detected traces of illegal drugs. All three were detained by the DEA pending further investigation.

7/22/08 – ONT - BDO Referrals Arrested on Multiple Charges - At 1540 hours on July 22, 2008, an Ontario BDO reported that at 1430 hours, three individuals who were traveling together were referred to secondary screening by the BDO due to suspicious behavior. At the same time, three separate individuals who were also traveling together were referred to secondary screening by the BDO due to suspicious behavior. During secondary screening, all six individuals were discovered with suspected fraudulent ID cards. The ID cards were determined to be fraudulent by the BDO due to the lack of security markings. LEOs responded and conducted National

Crime Information Center (NCIC) checks, all with negative findings, and allowed the six individuals to continue. After being released and completing secondary screening, the first set of passengers walked out of the airport. A BDO followed them and made a second notification to LEOs. LEOs and CBP responded. The second set of passengers was also escorted back to ICE. CBP arrested all six selectees on a state charge of Fraudulent Identification.

4/4/09 BDO Referral Results in Hospitalization of Individual at Boston (BOS) At 1536 hours on April 4, 2009, a Boston BDO reported that at 1517 hours, BDOs observed a passenger acting suspiciously while on the public side of Terminal B. Massachusetts State Police responded and interviewed the passenger who did not give a statement. LEOs conducted an NCIC check with positive results that the passenger is a Section-12 mental patient who had escaped McLean hospital. LEOs requested assistance from the Massachusetts Port Fire Rescue and Massachusetts General Hospital. Massachusetts General Hospital responded and took the passenger into protective custody.

4/6/09 Passengers Arrested after BDO Referral at Kansas City (MCI) At 1844 hours on April 6, 2009, a Kansas City Coordination Center Officer reported that at 1807 hours, BDOs referred two passengers to LEOs due to suspicious behavior. The Midwest Ticket Agent reported that the two passengers appeared suspicious at the ticket counter after one of the passengers tried to change their scheduled flight (b)(3):49 U.S.C. § 114(r) (b)(3):49 U.S.C. § 114(r) The ticket agent notified the gate agent who notified TSA. (b)(3):49 U.S.C. § 114(r) (b)(3):49 U.S.C. § 114(r) Kansas City Police responded at the checkpoint and interviewed the passengers. LEOs conducted an NCIC check, which revealed that both passengers were wanted on outstanding warrants for Kidnapping and Robbery. LEOs arrested the passengers on the Outstanding Warrants.

05/04/09 Passengers Arrested After BDO Referral at San Juan At 1951 hours on May 4, 2009, a San Juan BDO reported that at 1645 hours, BDOs referred two passengers to secondary screening due to suspicious behavior. One passenger did not have a valid government issued identification and presented the TDC with a learner's permit that had expired in 2003. TSA contacted the Identity Verification Coordination Center, who were able to verify the passenger's identity. During the IVCC process, both passengers' behavior escalated. The Puerto Rico Police responded and interviewed the passengers, but took no further action. The passengers missed the flight and were escorted into the public area. BDOs briefed undercover DEA agents, who conducted NCIC checks on the passengers, which revealed outstanding warrants related to drugs. DEA and BDOs located the passengers in a fast-food restaurant. DEA arrested the passengers on state charges for the outstanding warrants.

U.S. Department of Homeland Security
601 South 12th Street
Arlington, VA 20598

JAN 1 2 2010

Transportation Security Administration

ACTION

MEMORANDUM FOR: Elaine C. Duke
Under Secretary for Management

FROM: Gale D. Rossides
Acting Administrator

SUBJECT: Transportation Security Administration's (TSA's) Screening of Passengers by Observation Techniques (SPOT) Report as Required by the DHS Appropriations Act, 2010, Public Law (P.L.) 111-83

Purpose

To transmit a report and data to Congress regarding the Transportation Security Administration's Screening of Passengers by Observation Techniques (SPOT) program as required by the DHS Appropriations Act, 2010, P.L. 111-83.

Discussion

This report provides a background of the SPOT program, from inception to current state, and explains how the program provides an additional layer of security vital to the successful protection of the Nation's transportation systems, and supports the DHS mission to "prevent and deter terrorist attacks and protect against and respond to threats and hazards to the nation ...." This report also discusses the current and future initiatives designed to combat the above threats of terrorism.

Recommendation

Please clear the attached report for the Department of Homeland Security to deliver to the Chairmen and Ranking Members of the Senate and House Appropriations Subcommittees on Homeland Security.

Approve_____ Disapprove_____
Modify_____ Needs more discussion_____

Attachment

Air Cargo Screening Statistics

Fiscal Year 2010 Report to Congress

First Quarter

May 10, 2010

Homeland Security

Transportation Security Administration

Message from the Acting Administrator

May 10, 2010

I am pleased to present the following report "Air Cargo Screening Statistics" prepared by the Transportation Security Administration (TSA).

This report is required by Section 514 of the Fiscal Year 2010 Department of Homeland Security Appropriations Act (P.L. 111-83), which specifically requires TSA to submit screening statistics to Congress on a quarterly basis. P.L. 111-83 also requires TSA to report the amount of cargo screened at each airport by each passenger air carrier. Statistics included in this report are derived from data reported by the air carriers in the months of October, November and December 2009.

Section 1602 of the Implementing Recommendations of the 9/11 Commission Act of 2007 (P.L. 110-53) mandates that 50 percent of cargo placed on passenger aircraft is screened not later than February 3, 2009, and that 100 percent of cargo placed on passenger aircraft is screened not later than August 3, 2010. TSA is pleased to report that the February 2009 50-percent screening mandate has been met.

Pursuant to congressional requirements, this report is being provided to the following Members of Congress:

The Honorable David E. Price
Chairman, House Appropriations Subcommittee on Homeland Security

The Honorable Harold Rogers
Ranking Member, House Appropriations Subcommittee on Homeland Security

The Honorable Robert C. Byrd
Chairman, Senate Appropriations Subcommittee on Homeland Security

The Honorable George V. Voinovich
Ranking Member, Senate Appropriations Subcommittee on Homeland Security

Inquiries relating to this report may be directed to me at (571) 227-(b)(6) or to the Department's Deputy Chief Financial Officer, Peggy Sherry, at (b)(6)

Sincerely yours,

Gale D. Rossides
Acting Administrator

Executive Summary

This document constitutes the Transportation Security Administration's (TSA's) submission of the congressional requirement for air cargo screening statistics as required in the Fiscal Year (FY) 2010 Department of Homeland Security Appropriations Act (P.L. 111-83).

The First Quarter FY 2010 air cargo screening report includes a variety of statistics that identify the volume of air cargo accepted and screened, as reported by passenger air carriers and evaluated by TSA. Specifically, the report summarizes the following information:

1) Air cargo screening statistics from regulated domestic and foreign air carriers. This information encompasses all data, figures and diagrams for the months of October, November and December 2009. Specifically, the data focus on cargo uplifted on flights originating within the United States and its territories and cargo uplifted on inbound flights originating outside the United States and its territories. The total percentage of cargo screened on flights originating within the United States during this reporting period is 64 percent by weight and 75 percent by Master Air Way Bill (MAWB).

2) Air cargo screening statistics relating to Indirect Air Carriers (IACs), shippers and other entities certified by TSA to screen cargo for uplift on domestic passenger flights. These Certified Cargo Screening Facilities (CCSF) report cargo screening data to TSA pursuant to their program requirements. During this period, 337 CCSF-IACs were required for screening. The weight screened by CCSF-IACs was 194,258,754 pounds, while the number of MAWB screened during this period was 119,138.

3) Inbound cargo screening statistics from international last point of departure flights to the United States. TSA currently uses an analysis of historical data from the Bureau of Transportation Statistics (BTS) to estimate this statistic. Since BTS data lag significantly behind the reporting period, TSA uses data from the same period of the previous calendar year. The BTS data provide insight into the amount of cargo entering the United States aboard passenger aircraft by weight. During this period in 2008, BTS data reported that 385,217,772 pounds of cargo were transported on International LPD flights inbound to the United States. The percentage of weight screened on these flights was estimated to be 55 percent during this period.

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Air Cargo Screening Statistics
First Quarter Fiscal Year 2010

Table of Contents

I. Legislative Language

The Transportation Security Administration (TSA) respectfully submits the First Quarter Air Cargo Screening Statistics report pursuant to the language set forth in the Fiscal Year (FY) 2010 Department of Homeland Security (DHS) Appropriations Act (P.L. 111-83), which states:

> Not later than 45 days after the end of each quarter, the Assistant Secretary shall submit to the Committees on Appropriations of the Senate and the House of Representatives a report on air cargo inspection statistics by airport and air carrier detailing the incremental progress being made to meet the requirement of section 44901(g)(2)(B) of title 49, United States Code.

II. Background

The FY 2007 DHS Appropriations Act (P.L. 109-295), signed on October 4, 2006, states: "…TSA shall report air cargo screening statistics quarterly to the committees on Appropriations of the Senate and the House of Representatives, by airport and passenger air carrier…." The reporting requirement is continued in P.L. 111-83.

To implement the congressional mandate, TSA has issued a series of Security Directives, Emergency Amendments and updates to air carrier security programs requiring air carriers to submit cargo statistics on a monthly basis. The statistics derived from these submissions are the basis for TSA's report to the Congress. In addition to the recent 50-percent cargo screening requirement, TSA has further secured the air cargo environment by requiring the screening of 100 percent of cargo placed on passenger aircraft at smaller commercial Category II–IV airports throughout the United States and its territories. TSA has also mandated 100-percent screening of cargo identified as elevated risk within the U.S. air cargo supply chain and required that sensitive cargo be subject to alternative security measures. In October 2008, TSA mandated the screening of 100 percent of cargo placed on narrow body aircraft departing from the United States and its territories' airports.

III. TSA Air Cargo Screening Statistics Report

A. Q1 FY 2010 Screening Summary

Pursuant to the reporting requirement set forth in Section 514(b), of P.L. 111-83, TSA hereby submits air cargo screening data for the first quarter of FY 2010.

Cargo Uplifted on Flights Originating Within the United States and Territories

Month	% Cargo Screened by Weight	% Cargo Screened by Shipment (MAWB)*
October 2009	62%	77%
November 2009	65%	76%
December 2009	64%	73%
Q1 FY 2010 Total	64%	75%
Q4 FY 2009 Total	62%	77%
Q3 FY 2009 Total	62%	77%

*Master Air Way Bill

Cargo Uplifted on Inbound Flights Originating Outside the United States and Territories[1]

Month	Weight Tendered (lbs)	Weight Screened (lbs)	Percentage of Pounds Screened
October 2008	260,802,770	141,628,806	54%
November 2008	242,854,446	132,155,966	54%
December 2008	202,791,338	111,433,001	55%
Q1 FY 2008 Total	706,448,554	385,217,772	55%
Q4 FY 2008 Total	788,120,607	437,522,032	56%
Q3 FY 2008 Total	812,832,871	437,135,008	54%

[1] 2008 air carrier reporting data from Bureau of Transportation Statistics (BTS). FY 2010 first quarter data will not be available until June 2010.

B. Domestic Air Carrier Statistics – All Airports

Air carriers, operating domestically, reported cargo screening data to TSA pursuant to their security programs. An analysis of this data verifies that the February 2009 50-percent screening mandate has been achieved and sustained. A summary of these statistics follows.

Cargo Uplifted on Flights Originating Within the United States and Territories

Month	# of MAWB Uplifted	Weight Uplifted (lbs)	# of MAWB Screened	Weight Screened (lbs)
October 2009	488,634	259,047,920	376,247	161,369,718
November 2009	447,554	240,491,902	341,633	155,336,241
December 2009	417,669	254,560,607	306,561	163,643,376
Q1 FY 2010 Total*	1,353,857	754,100,429	1,024,441	480,349,335
Q4 FY 2009 Total	1,426,198	717,718,465	1,095,078	442,243,059
Q3 FY 2009 Total	1,405,295	662,905,248	1,086,568	410,937,786
***Q1 FY 2010: 76 percent of MAWB screened; 64 percent of weight screened.**				

Cargo Screening Distribution for October, November and December 2009

(b)(3):49 U.S.C. § 114(r)

C. Domestic Certified Cargo Screening Program (CCSP)

Indirect Air Carriers (IAC), shippers and other entities screening cargo for uplift on domestic passenger flights as Certified Cargo Screening Facilities (CCSFs) also reported cargo screening data to TSA pursuant to their program/order requirements. A summary of this data appears below. These numbers are included in cargo data reported by air carriers.

CCSF-IAC Shipments Uplifted on Flights Originating Within the United States and Territories[2]

Month	# of IACs Required to Screen[3]	# of MAWB Screened	Weight Screened (lbs)
October 2009	305	40,878	61,626,815
November 2009	328	38,175	61,431,179
December 2009	337	40,085	71,200,760
Q1 FY 2010 Ending	337	119,138	194,258,754
Q4 FY 2009 Total	322	117,897	159,576,711
Q3 FY 2009 Total	226	80,184	99,812,939

CCSF (Non-IAC) Shipments Uplifted on Flights Originating Within the United States and Territories[4]

Month	# of Non-IACs Required to Screen[5]	# of House Air Way Bills Screened	Weight Screened (lbs)
October 2009	91	14,179	3,581,877
November 2009	105	11,786	3,574,596
December 2009	118	19,502	4,241,307
Q1 FY 2010 Ending	118	45,467	11,397,780
Q4 FY 2009Total	92	23,070	7,124,155
Q3 FY 2009Total	43	31,922	6,308,067

[2] These data are included in cargo data reported by air carriers.
[3] IACs must screen 90 days after certification. The data collected for the *# of CCSF IACs Required to Screen* in this table are per CCSF facility.
[4] These data are included in cargo data reported by air carriers.
[5] Non-IAC CCSFs must screen 90 days after certification. The data collected for the *# of CCSF (Non-IACs) Required to Screen* in this table are per CCSF facility.

D. International Last Point of Departure Screened Cargo

International Inbound (Last Point of Departure into the United States)[6]

Month	Weight Tendered (lbs)	Weight Screened (lbs)	Percentage of Pounds Screened
October 2008	260,802,770	141,628,806	54%
November 2008	242,854,446	132,155,966	54%
December 2008	202,791,338	111,433,001	55%
Q1 FY 2010	706,448,554	385,217,772	55%
Q4 FY 2009 Total	788,120,607	437,522,032	56%
Q3 FY 2009 Total	812,832,871	437,135,008	54%

Historically, air carriers were not required to report cargo screening data for flights entering the United States from an international last point of departure (LPD). Nonetheless, an analysis of historical data from the Bureau of Transportation Statistics (BTS) indicates that more than 50 percent of cargo entering the United States from international LPDs is screened prior to uplift. BTS data provide insight into the amount of cargo entering the United States aboard passenger aircraft by weight.

TSA has calculated an estimated percentage of screened inbound cargo by LPD country. The estimated percentages assigned to individual countries are based on data from several sources, including TSA international cargo inspectors, TSA Representatives and discussions with foreign government officials.

BTS statistics from October, November and December 2008 indicate that approximately 706,448,554 pounds of air cargo entered the United States aboard passenger aircraft. It is estimated that approximately 385,217,772 pounds (55 percent) of total cargo were screened prior to uplift from its LPD country.

TSA is in the process of addressing data points that are currently unavailable, and is preparing to require cargo screening reporting from air carriers at international LPDs beginning in spring 2010. TSA is also working with the U.S. Customs and Border Protection to gain access to real-

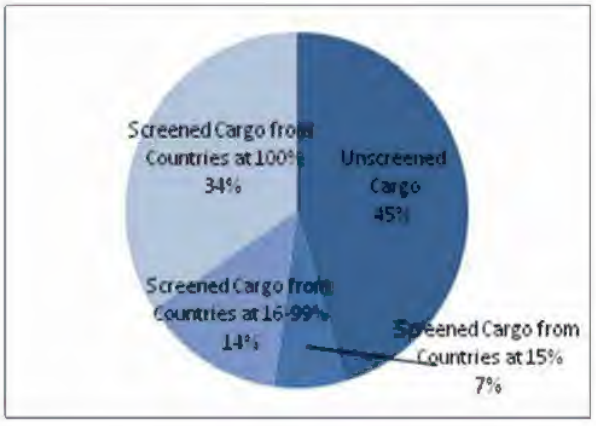
[6] 2008 air carrier reporting data from BTS. First Quarter FY 2010 data will not be available until June 2010.

time inbound cargo data. Coupled with screening reporting data, TSA will have increasingly reliable information on international inbound air cargo in the future.

October, November and December 2008 Screening Statistics for LPD flights[7]

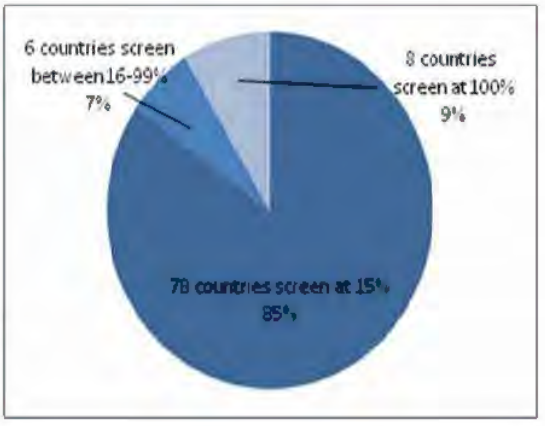
Volume (lbs)

Of the approximately 706 million pounds of of air cargo entering the United States, 55% was screened by weight



Number of Countries

92 countries were LPD for inbound air cargo



[7] 2008 air carrier reporting data from BTS. FY 2010 first quarter data will not be available until June 2010.

IV. Appendices

A. Cargo Screening Data by Cat X, I and Air Carrier

Cat X, I Compliance	Total Uplifted	Total Screened	%Total Screened
# MAWB	1,281,771	985,025	76.9%
Cargo Weight (LBS)	748,374,001	477,612,500	63.8%

BY AIRPORT CATEGORY X,I AND AIR CARRIERS
TSA CARGO SCREENING RESULTS ON 50, 100% REPORTING BY PASSENGER AIR CARRIERS

Reporting Period: FY2010-Q1
Data included in report by carriers submitting usable data to TSA.

MAWB Screened = MAWB Screened at 100% + (MAWB Screened at 50% x 0.5)
LBS Screened = Pounds of MAWB Screened at 100% + (Pounds of MAWB Screened at 50% x 0.5)
Sorted by cargo weight (Lbs) uplifted and view of the top 5 airports and top 5 carriers at those stations with subtotals displayed.

Airport Code	Airport Name	Carrier Name	Total MAWB Uplifted	Total LBS Uplifted	MAWB Screened at 100%	LBS Screened at 100%	MAWBs Screened at 50%	LBS Screened at 50%	Total MAWB Screened	Total LBS Screened	% Of MAWB Screened	% Of LBS Screened
Grand Total			1,281,771	748,374,001	965,771	441,322,410	38,508	72,580,179	985,025	477,612,500	76.85%	63.82%

(b)(3):49 U.S.C. § 114(r)

B. Percentage of Total Inbound International Passenger Cargo Screened First Quarter FY 2008

October, November, December 2008 % of TOTAL Inbound PAX Cargo Screened	55.0%

Screened (%)	Country	Oct 2008 Inbound PAX Cargo (lbs)	Oct 2008 Screened (lbs)	Nov 2008 Inbound PAX Cargo (lbs)	Nov 2008 Screened (lbs)	Dec 2008 Inbound PAX Cargo (lbs)	Dec 2008 Screened (lbs)	Q1 Inbound PAX Cargo (lbs)	Q1 Screened (lbs)
(b)(3):49 U.S.C. § 114(r)									

Air Cargo Screening Statistics

Fiscal Year 2010 Report to Congress
Third Quarter
November 10, 2010

Homeland Security

Transportation Security Administration

Message from the Administrator

November 10, 2010

I am pleased to present the following report, "Air Cargo Screening Statistics," which was prepared by the Transportation Security Administration (TSA).

This report was compiled pursuant to Section 514 of the Fiscal Year 2010 Department of Homeland Security Appropriations Act (P.L. 111-83), which specifically requires TSA to submit screening statistics to Congress every quarter. P.L. 111-83 also requires TSA to report the amount of cargo that each passenger air carrier screened at each airport. Statistics included in this report are derived from data that air carriers reported in April, May and June 2010.

Section 1602 of the Implementing Recommendations of the 9/11 Commission Act of 2007 (P.L.110-53) mandates that 50 percent of cargo placed on passenger aircraft be screened not later than February 3, 2009, and that 100 percent of cargo placed on passenger aircraft be screened not later than August 3, 2010. TSA is pleased to report that the February 2009 50-percent screening mandate has been achieved and sustained.

Pursuant to congressional requirements, this report is being provided to the following Members of Congress:

The Honorable David E. Price
Chairman, House Appropriations Subcommittee on Homeland Security

The Honorable Harold Rogers
Ranking Member, House Appropriations Subcommittee on Homeland Security

The Honorable Frank R. Lautenberg
Interim Chairman, Senate Appropriations Subcommittee on Homeland Security

The Honorable George V. Voinovich
Ranking Member, Senate Appropriations Subcommittee on Homeland Security

Inquiries relating to this report may be directed to me at (571) 227-(b)(6) or to the Department's Deputy Chief Financial Officer, Peggy Sherry, at (b)(6)

Sincerely yours,

John S. Pistole
Administrator

Executive Summary

This document is the Transportation Security Administration's (TSA's) submission of the congressional requirement for air cargo screening statistics, as required by the Fiscal Year (FY) 2010 Department of Homeland Security Appropriations Act (P.L. 111-83).

The Third Quarter FY 2010 air cargo screening report includes a variety of statistics that identify the volume of air cargo accepted and screened, as reported by passenger air carriers and evaluated by TSA. Specifically, the report summarizes the following information:

1) Air cargo screening statistics from regulated domestic and foreign air carriers. This information encompasses all data, figures and diagrams for the months of April, May and June 2010. Specifically, the data focus on cargo uplifted on flights originating within the United States/territories and cargo uplifted on inbound flights originating outside the United States/territories. The total percentage of cargo screened on flights originating within the United States during this reporting period is 78 percent by weight and 79 percent by Master Air Way Bill (MAWB).

2) Air cargo screening statistics relating to Indirect Air Carriers (IACs), shippers and other entities certified by TSA to screen cargo for uplift on domestic passenger flights. These Certified Cargo Screening Facilities (CCSFs) report cargo screening data to TSA pursuant to their program requirements. During this period, 391 CCSF-IACs were required to screen. The total weight screened by CCSF-IACs was 308,120,685 pounds, while the total number of MAWBs screened during this period was 178,457.

3) Inbound cargo screening statistics from international last point of departure (LPD) flights to the United States. TSA currently uses an analysis of historical data from the Bureau of Transportation Statistics (BTS) to estimate this statistic. Because BTS data lag significantly behind the reporting period, TSA uses data from the same period of the previous calendar year. The BTS data provide insight into the amount of cargo entering the United States aboard passenger aircraft by weight. TSA used the amount of cargo tendered by pounds from 2009 BTS data for April, May and June as a proxy for this reporting period and used these data to estimate the amount of pounds screened to obtain the overall percentage for this reporting period. During this period in 2009, BTS data reported that 401,057,807 pounds of cargo was transported on international LPD flights inbound to the United States. The percentage of weight screened on these flights was estimated to be 60 percent during this period.

Air Cargo Screening Statistics
Third Quarter Fiscal Year 2010

Table of Contents

I. Legislative Language

This document responds to language set forth in the Fiscal Year (FY) 2010 Department of Homeland Security (DHS) Appropriations Act (P.L 111-83), which states:

> Not later than 45 days after the end of each quarter, the Assistant Secretary shall submit to the Committees on Appropriations of the Senate and the House of Representatives a report on air cargo inspection statistics by airport and air carrier detailing the incremental progress being made to meet the requirement of section 44901(g)(2)(B) of title 49, United States Code.

II. Background

The FY 2007 DHS Appropriations Act (P.L. 109-295), signed on October 4, 2006, states that the Transportation Security Administration (TSA) "… shall report air cargo screening statistics quarterly to the committees on Appropriations of the Senate and the House of Representatives, by airport and passenger air carrier…" The reporting requirement is continued in P.L. 111-83.

To implement the congressional mandate, TSA has updated the air carrier security programs to require air carriers to submit cargo statistics monthly. The statistics derived from these submissions are the basis for TSA's report to Congress. In addition to the February 2009 50-percent cargo screening requirement, TSA has further secured the air cargo environment by requiring the screening of 100 percent of cargo placed on passenger aircraft at smaller commercial Category II-IV airports throughout the United States and its territories. TSA has also mandated 100-percent screening of cargo identified as elevated risk within the U.S. air cargo supply chain and required that sensitive cargo be subject to alternative security measures. In October 2008, TSA mandated the screening of 100 percent of cargo placed on narrow-body aircraft departing from the United States and its territory airports.

III. TSA Air Cargo Screening Statistics Report

A. Third Quarter FY 2010 Screening Summary

Pursuant to the reporting requirement set forth in Section 514(b) of P.L. 111-83, TSA hereby submits air cargo screening data for the third quarter of FY 2010.

Cargo Uplifted on Flights Originating Within the United States and Territories

Month	% Cargo Screened by Weight	% Cargo Screened by Shipment (MAWB*)
April 2010	70%	77%
May 2010	83%	81%
June 2010	82%	79%
3rd Quarter FY 2010 Total	78%	79%
2nd Quarter FY 2010 Total	66%	75%

*MAWB = Master Air Way Bill

Cargo Uplifted on Inbound Flights Originating Outside the United States and Territories

Month	Weight Tendered (lbs)[1]	Weight Screened (lbs)[2]	Percentage of Pounds Screened[3]
April 2010	212,838,721	116,668,104	55%
May 2010	223,444,250	139,544,054	62%
June 2010	232,086,877	144,845,650	62%
3rd Quarter FY 2010 Total[4]	668,369,848	401,057,807	60%
2nd Quarter FY 2010[5] Total	596,936,224	332,303,307	56%

B. Domestic Air Carrier Statistics – All Airports

Air carriers operating domestically reported cargo screening data to TSA, pursuant to their security programs. Analysis of April data verifies that the February 2009 50-percent screening mandate has been achieved. Analysis of May and June data verifies the May 2010 75-percent screening mandate has been achieved and sustained. A summary of these statistics follows.

[1] TSA used 2009 BTS actual data for *Weight Tendered* as a proxy for April, May and June 2010.
[2] TSA used 2009 BTS actual data to estimate *Weight Screened* for April, May and June 2010.
[3] TSA used 2009 BTS actual data to estimate *Percentage of Pounds Screened* for April, May and June 2010.
[4] TSA used an estimate for the Third Quarter (Q3) FY 2010 data based on BTS Q3 FY 2009 actual data.
[5] TSA used an estimate for Second Quarter (Q2) FY 2010 data based on BTS Q2 FY 2009 actual data.

Cargo Uplifted on Flights Originating Within the United States and Territories[6]

Month	# of MAWB Uplifted	Weight Uplifted (lbs)	# of MAWB Screened	Weight Screened (lbs)
April 2010	410,875	253,643,010	318,346	176,321,998
May 2010	466,629	289,272,858	379,509	240,423,341
June 2010	461,419	282,516,493	365,667	230,959,085
3rd Quarter FY 2010 Total	1,338,923	825,432,361	1,063,522	647,704,424
2nd Quarter FY 2010 Total	1,155,959	744,906,100	869,088	493,424,093
Third Quarter FY 2010 79 percent of Master Air Way Bill (MAWB) screened 78 percent of weight screened				

Cargo Screening Distribution for April, May and June 2010

(b)(3):49 U.S.C. § 114(r)

C. Domestic Certified Cargo Screening Program

Indirect Air Carriers (IAC), shippers and other entities screening cargo for uplift on domestic passenger flights as Certified Cargo Screening Facilities (CCSFs) also reported cargo screening

[6] These data include screening from Category X, I, II, III and IV airports.

data to TSA, pursuant to their program/order requirements. A table summarizing the data follows. These numbers are included in cargo data reported by air carriers.

CCSF-IAC Shipments Uplifted on Flights Originating Within the United States and Territories[7]

Month	# of IACs Required to Screen[8]	# of MAWB Screened	Weight Screened (lbs)
April 2010	380	48,656	77,212,796
May 2010	382	62,929	106,961,669
June 2010	391	66,872	123,946,220
3rd Quarter FY 2010 Total	391	178,457	308,120,685
2nd Quarter FY 2010 Total	374	142,074	226,039,556

CCSF (Non-IAC) Shipments Uplifted on Flights Originating Within the United States and Territories[9]

Month	# of Non-IACs Required to Screen[10]	# of House Air Way Bills Screened	Weight Screened (lbs)
April 2010	161	27,538	6,521,112
May 2010	182	39,656	8,509,948
June 2010	209	51,438	11,914,341
3rd Quarter FY 2010 Total	209	118,632	26,945,401
2nd Quarter FY 2010 Total	155	77,421	13,468,743

[7] These data are included in cargo data reported by air carriers.

[8] IACs must screen 90 days after certification. The data collected for the *# of CCSF IACs Required to Screen* in this table are per CCSF facility. The *# of IACs Required to Screen* is a total population figure that includes the previous month's total. The *Third Quarter FY 2010 Total* is the total population for the quarter, not a sum of the 3 months in the quarter.

[9] These data are included in cargo data reported by air carriers.

[10] Non-IAC CCSFs must screen 90 days after certification. The data collected for the *# of CCSF (Non-IACs) Required to Screen* in this table is per CCSF facility. The *# of Non-IACs Required to Screen* is a total population figure that includes the previous month's total. The *Third Quarter FY 2010 Total* is the total population for the quarter, not a sum of the 3 months in the quarter.

D. International Last Point of Departure Screened Cargo

International Inbonnd (Last Point of Departure into the United States)

Month	Weight Tendered (lbs)[11]	Weight Screened (lbs)[12]	Percentage of Pounds Screened[13]
April 2010	212,838,721	116,668,104	55%
May 2010	223,444,250	139,544,054	62%
June 2010	232,086,877	144,845,650	62%
3rd Quarter FY 2010[14]	668,369,848	401,057,807	60%
2nd Quarter FY 2010[15]	596,936,224	332,303,307	56%

Historically, air carriers were not required to report cargo screening data for flights entering the United States from an international last point of departure (LPD). Nonetheless, an analysis of historical data from the Bureau of Transportation Statistics (BTS) indicates that 60 percent of cargo entering the United States from international LPDs is screened before takeoff. BTS data provide insight into the amount of cargo entering the United States aboard passenger aircraft by weight.

TSA has calculated an estimated percentage of screened inbound cargo by LPD country. The estimated percentages assigned to individual countries are based on data from several sources including TSA international cargo inspectors, TSA representatives and discussions with foreign government officials.

BTS statistics from April, May and June 2009 indicate that approximately 668,369,848 pounds of air cargo entered the United States aboard passenger aircraft. It is estimated that approximately 401,057,807 pounds (60 percent) of total cargo were screened before uplift from its LPD country.

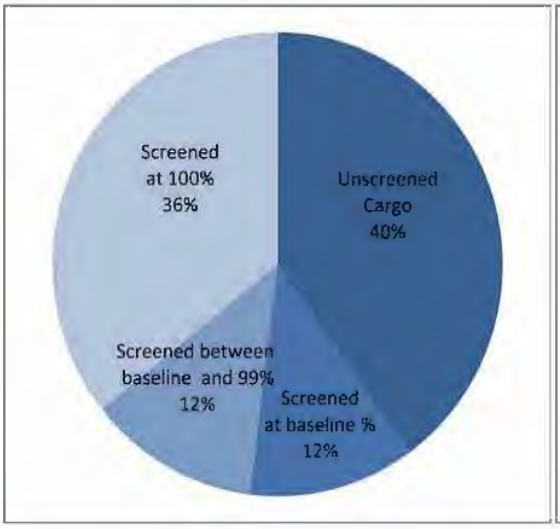
TSA has updated security programs that, effective May 2010, require air carriers at international LPDs to begin reporting screened cargo. However, because TSA does not have a complete quarter of actual data, and the data collected from air carriers showed quality inconsistencies often seen with new data reporting requirements, TSA is using BTS data for the entire reporting period.

[11] TSA used 2009 BTS actual data for *Weight Tendered* as a proxy for April, May and June 2010.
[12] TSA used 2009 BTS actual data to estimate *Weight Screened* for April, May and June 2010.
[13] TSA used 2009 BTS actual data to estimate *Percentage of Pounds Screened* for April, May and June 2010.
[14] TSA used an estimate for Third Quarter (Q3) FY 2010 data based on BTS Q3 FY 2009 actual data.
[15] TSA used an estimate for Second Quarter (Q2) FY 2010 data based on BTS Q2 FY 2009 actual data.

April, May and June 2009 Screening Statistics for LPD flights[16]

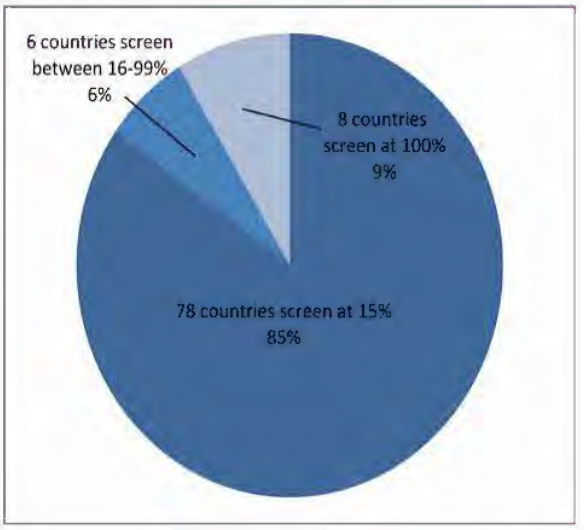
Volume (lbs)[17]

Of the approximately 668 million pounds of air cargo entering the United States, 60 percent was screened by weight.



Number of Countries

Ninety-two countries were LPDs for inbound air cargo.



[16] Based on Third Quarter FY 2009 air carrier reporting data from BTS

[17] On the basis of increased screening requirements, TSA estimated a 32-percent baseline for screening percentage in May and June 2009 BTS data.

IV. Appendices

A. Cargo Screening Data by Category X, I and Air Carrier[18]

CATEGORY X & I Compliance	Total Uplifted	Total Screened	% of Total Screened
# of MAWB	1,257,362	1,013,467	80.6%
Cargo Weight (lbs)	805,596,450	630,479,347	78.3%

BY AIRPORT CATEGORY X, I AND AIR CARRIERS
TSA CARGO SCREENING RESULTS ON 100-PERCENT REPORTING BY PASSENGER AIR CARRIERS

Reporting Period: FY 2010 Third Quarter
Data included in report by carriers submitting usable data to TSA.

* MAWB = Master Air Way Bills

April data were calculated on the basis of requirement to screen 50 percent of cargo placed on passenger aircraft effective on February 1, 2009.
**MAWB Screened = MAWB Screened at 100 percent + (MAWB Screened at 50 percent x 0.5)
** lbs Screened = Pounds of MAWB Screened at 100 percent + (Pounds of MAWB Screened at 50 percent x 0.5)

May and June data was calculated on the basis of requirement to screen 75 percent of cargo placed on passenger aircraft effective on May 1, 2010.
** MAWB Screened = MAWB Screened at 100 percent + (MAWB Screened at 75 percent x 0.75)
** lbs Screened = Pounds of MAWB Screened at 100 percent + (Pounds of MAWB Screened at 75 percent x 0.75).

[18] The data in this table represent screening at Category X and Category I airports only, while data in the *Cargo Uplifted on Flights Originating Within the United States and Territories* table on page 4 represent screening data at all airports.
*Figures in this chart have been rounded; therefore, column totals may not equal the sum of the numbers displayed in each column.

Summary of Third Quarter Data*

Airport Code	Airport Name	Carrier Name	*Total MAWB Uplifted	Total Pounds Uplifted	MAWB Screened at 100%	Pounds Screened at 100%	MAWB Screened at 50% (75%)	Pounds Screened at 50% (75%)	**Total MAWB Screened	**Total Pounds Screened	% of MAWB Screened	% of Pounds Screened
Grand Total*			1,257,362	805,596,450	999,619	609,821,558	21,945	33,461,071	1,013,467	630,479,347	80.60%	78.26%
		Data										

(b)(3):49 U.S.C. § 114(r)

Summary of Third Quarter Data*

Airport Code	Airport Name	Carrier Name	*Total MAWB Uplifted	Total Pounds Uplifted	MAWB Screened at 100%	Pounds Screened at 100%	MAWB Screened at 50% (75%)	Pounds Screened at 50% (75%)	**Total MAWB Screened	**Total Pounds Screened	% of MAWB Screened	% of Pounds Screened

(b)(3):49 U.S.C. § 114(r)

Summary of Third Quarter Data*

Airport Code	Airport Name	Carrier Name	*Total MAWB Uplifted	Total Pounds Uplifted	MAWB Screened at 100%	Pounds Screened at 100%	MAWB Screened at 50% (75%)	Pounds Screened at 50% (75%)	**Total MAWB Screened	**Total Pounds Screened	% of MAWB Screened	% of Pounds Screened

(b)(3):49 U.S.C. § 114(r)

Summary of Third Quarter Data*

Airport Code	Airport Name	Carrier Name	*Total MAWB Uplifted	Total Pounds Uplifted	MAWB Screened at 100%	Pounds Screened at 100%	MAWB Screened at 50% (75%)	Pounds Screened at 50% (75%)	**Total MAWB Screened	**Total Pounds Screened	% of MAWB Screened	% of Pounds Screened

(b)(3):49 U.S.C. § 114(r)

Summary of Third Quarter Data*

Airport Code	Airport Name	Carrier Name	*Total MAWB Uplifted	Total Pounds Uplifted	MAWB Screened at 100%	Pounds Screened at 100%	MAWB Screened at 50% (75%)	Pounds Screened at 50% (75%)	**Total MAWB Screened	**Total Pounds Screened	% of MAWB Screened	% of Pounds Screened

(b)(3):49 U.S.C. § 114(r)

B. Percentage of Total Inbound International Passenger Cargo Screened Third Quarter Fiscal Year 2009

April, May and June 2009 % of TOTAL Inbound PAX Cargo Screened	60.0%

Screened (%)	Country	April 2009 Inbound PAX Cargo (lbs) 15% baseline	April 2009 Screened (lbs) 15% baseline	May 2009 Inbound PAX Cargo (lbs) 32% baseline	May 2009 Screened (lbs) 32% baseline	June 2009 Inbound PAX Cargo (lbs) 32% baseline	June 2009 Screened (lbs) 32% baseline	Third Quarter Inbound PAX Cargo (lbs)	Third Quarter Screened (lbs)

(b)(3):49 U.S.C. § 114(r)

Screened (%)	Country	April 2009 Inbound PAX Cargo (lbs) 15% baseline	April 2009 Screened (lbs) 15% baseline	May 2009 Inbound PAX Cargo (lbs) 32% baseline	May 2009 Screened (lbs) 32% baseline	June 2009 Inbound PAX Cargo (lbs) 32% baseline	June 2009 Screened (lbs) 32% baseline	Third Quarter Inbound PAX Cargo (lbs)	Third Quarter Screened (lbs)

(b)(3):49 U.S.C. § 114(r)

Screened (%)	Country	April 2009 Inbound PAX Cargo (lbs) 15% baseline	April 2009 Screened (lbs) 15% baseline	May 2009 Inbound PAX Cargo (lbs) 32% baseline	May 2009 Screened (lbs) 32% baseline	June 2009 Inbound PAX Cargo (lbs) 32% baseline	June 2009 Screened (lbs) 32% baseline	Third Quarter Inbound PAX Cargo (lbs)	Third Quarter Screened (lbs)

(b)(3):49 U.S.C. § 114(r)

Screened (%)	Country	April 2009 Inbound PAX Cargo (lbs) 15% baseline	April 2009 Screened (lbs) 15% baseline	May 2009 Inbound PAX Cargo (lbs) 32% baseline	May 2009 Screened (lbs) 32% baseline	June 2009 Inbound PAX Cargo (lbs) 32% baseline	June 2009 Screened (lbs) 32% baseline	Third Quarter Inbound PAX Cargo (lbs)	Third Quarter Screened (lbs)

(b)(3):49 U.S.C. § 114(r)

Screened (%)	Country	April 2009 Inbound PAX Cargo (lbs) 15% baseline	April 2009 Screened (lbs) 15% baseline	May 2009 Inbound PAX Cargo (lbs) 32% baseline	May 2009 Screened (lbs) 32% baseline	June 2009 Inbound PAX Cargo (lbs) 32% baseline	June 2009 Screened (lbs) 32% baseline	Third Quarter Inbound PAX Cargo (lbs)	Third Quarter Screened (lbs)
(b)(3):49 U.S.C. § 114(r)									

*Figures in this chart have been rounded; therefore, column totals may not equal the sum of the numbers displayed in each column.

Air Cargo Screening Statistics

Fiscal Year 2010 Report to Congress
Fourth Quarter
May 10, 2011

Homeland Security

Transportation Security Administration

Message from the Administrator

May 10, 2011

I am pleased to present the following report, "Air Cargo Screening Statistics," which was prepared by the Transportation Security Administration (TSA).

This report was compiled pursuant to Section 1104 of the *Fiscal Year* (FY) *2011 Full-Year Continuing Appropriations Act* (P.L. 112-10) and Section 514 of the *FY 2010 Department of Homeland Security* (DHS) *Appropriations Act* (P.L. 111-83). P.L. 111-83 specifically requires TSA to submit screening statistics to Congress every quarter. P.L. 111-83 also requires TSA to report the amount of cargo that each passenger air carrier screened at each airport. Statistics included in this report are derived from data that air carriers reported in July, August, and September 2010.

Section 1602 of the *Implementing Recommendations of the 9/11 Commission Act of 2007* (P.L. 110-53) mandated that 50 percent of cargo transported on passenger aircraft be screened not later than February 3, 2009, and that 100 percent of cargo transported on passenger aircraft be screened not later than August 3, 2010. TSA is pleased to report that the August 2010 100-percent screening mandate has now been achieved with respect to cargo transported on flights of passenger aircraft originating within the United States. TSA is also pleased to report that strong progress has been achieved, as demonstrated through the statistics set forth in this report, with respect to screening of cargo transported on flights of passenger aircraft destined for the United States from international locations.

Pursuant to congressional requirements, this report is being provided to the following Members of Congress:

The Honorable Robert B. Aderholt
Chairman, House Appropriations Subcommittee on Homeland Security

The Honorable David E. Price
Ranking Member, House Appropriations Subcommittee on Homeland Security

The Honorable Mary L. Landrieu
Chairman, Senate Appropriations Subcommittee on Homeland Security

The Honorable Daniel Coats
Ranking Member, Senate Appropriations Subcommittee on Homeland Security

Inquiries relating to this report may be directed to me at (571) 227-(b)(6) or to the Department's Deputy Chief Financial Officer, Peggy Sherry, at (b)(6)

Sincerely yours,

John S. Pistole
Administrator

Executive Summary

This document constitutes TSA's submission of the congressional requirement for air cargo screening statistics as required in the *FY 2010 DHS Appropriations Act* (P.L. 111-83).

The Fourth Quarter FY 2010 air cargo screening report includes a variety of statistics that identify the volume of air cargo accepted and screened, as reported by passenger air carriers and evaluated by TSA. Specifically, the report summarizes the following information:

1) Air cargo screening statistics from regulated domestic and foreign air carriers. This information encompasses all data, figures, and diagrams for the months of July, August, and September 2010. Specifically, the data cover cargo uplifted on passenger flights originating within the United States/territories and cargo uplifted on inbound passenger flights originating outside the United States/territories. The total percentage of cargo screened on flights of passenger aircraft originating within the United States during this reporting period is 94 percent by weight and 98 percent by Master Air Way Bill (MAWB). As noted, however, analysis of the August and September data demonstrates that the 100-percent screening mandate has now been achieved with respect to cargo transported on flights of passenger aircraft originating within the United States.[1] The total screening percentage of cargo transported on flights of passenger aircraft arriving into the United States from international locations during this reporting period is 78 percent by weight, up from an estimated 60 percent identified in the previous quarterly report.

2) Data on cargo handled by way of alternate security measures. Alternate security measures are applied to cargo shipments that may be damaged or compromised if TSA's customary screening methods are employed. These types of cargo shipments may include, but are not limited to, the following: human remains, medical shipments, live animals, diplomatic pouches, etc. Cargo subject to alternative security measures is "screened" within the definition of screening in the *Implementing Recommendations of the 9/11 Commission Act of 2007* (P.L. 110-53) and counts toward the 100-percent mandate. TSA allows cargo handled by way of alternate security measures to be accepted for transport on a passenger or all cargo aircraft. For cargo uplifted on flights of passenger aircraft originating in the United States and its territories, the total volume of cargo screened includes cargo screened using approved screening measures, as well as cargo handled by way of alternate security measures.

1 Calculations of reported data show that 99.9 percent of the cargo shipments (MAWBs) and weight were screened in August and September 2010. TSA is addressing the less than 0.1-percent rate of non-compliance.

3) Air cargo screening statistics linked to Indirect Air Carriers (IACs), shippers, and other entities certified by TSA to screen cargo for uplift on domestic passenger flights. These Certified Cargo Screening Facilities (CCSFs) report cargo screening data to TSA pursuant to their program requirements. During this period, 448 CCSF-IACs were required to screen. The total weight of shipments uplifted on flights originating within the United States/territories screened by CCSF-IACs was 363,772,750 pounds, while the total number of MAWBs of shipments uplifted on flights originating within the United States/territories screened during this period was 242,222.

4) Inbound cargo screening statistics from international last point of departure (LPD) flights to the United States. For previously submitted reports and because of the lack of available data, TSA used analyses from the Bureau of Transportation Statistics (BTS) to estimate inbound cargo screened on LPD flights. As of this reporting period, the data, figures, and diagrams for the months of July, August, and September 2010 depict actual international inbound cargo arriving from LPD locations reporting cargo screened pursuant to their security programs.

Air Cargo Screening Statistics
Fourth Quarter Fiscal Year 2010

Table of Contents

I. Legislative Language

This document responds to language set forth in Section 1104 of the *FY 2011 Full-Year Continuing Appropriations Act* (P.L. 112-10) and in the *FY 2010 DHS Appropriations Act* (P.L 111-83). Section 1104 specifies that, for FY 2011, DHS is subject to the terms and conditions of P.L. 111-83, including these particular report requirements. P.L. 111-83 states:

> Not later than 45 days after the end of each quarter, the Assistant Secretary shall submit to the Committees on Appropriations of the Senate and the House of Representatives a report on air cargo inspection statistics by airport and air carrier detailing the incremental progress being made to meet the requirement of section 44901(g)(2)(B) of title 49, United States Code.

II. Background

The *FY 2007 DHS Appropriations Act* (P.L. 109-295), signed on October 4, 2006, states: "…TSA shall report air cargo screening statistics quarterly to the committees on Appropriations of the Senate and the House of Representatives, by airport and passenger air carrier…" The reporting requirement is continued in P.L. 111-83.

To implement this congressional mandate, TSA updated the air carrier security programs to require air carriers to submit cargo statistics monthly for TSA's report to Congress. Other measures implemented by TSA—through its regulatory authorities to meet the 100-percent screening requirement for cargo transported on passenger aircraft mandated by the *Implementing Recommendations of the 9/11 Commission Act of 2007* (P.L. 110-53)—included the requirement to screen 100 percent of cargo loaded on passenger aircraft at smaller commercial Category II-IV airports throughout the United States and its territories. TSA also mandated 100-percent screening of cargo identified as elevated risk within the U.S. air cargo supply chain and required that sensitive cargo be subject to alternate security measures. In October 2008, TSA mandated the screening of 100 percent of cargo placed on narrow body aircraft departing any commercial airport within the United States and its territories.

In May 2010, as an effort to further the transition toward the 100-percent screening requirement while also easing the significant burdens imposed on the cargo and aviation industries, TSA implemented a requirement for air carriers to screen 75 percent of the cargo transported on passenger aircraft for any flight originating within the United States and its territories. As of August 1, 2010, TSA now requires air carriers to ensure, pursuant to their security programs, that 100 percent of cargo is screened on any passenger aircraft originating within the United States.

In May 2010, TSA also increased the required screening percentages for cargo transported on flights of passenger aircraft arriving into the United States from international locations, and required air carriers to report total inbound weight uplifted and weight screened. The increased screening requirements now include: 100 percent on narrow body, 100 percent of all loose shipments (those not tendered on skids), and 15 percent of shipments configured on skids, per flight.

III. TSA Air Cargo Screening Statistics Report

A. Fourth Quarter (Q4) FY 2010 Screening Summary

Pursuant to the reporting requirement set forth in Section 514(b) of P.L. 111-83, TSA hereby submits air cargo screening data for the Fourth Quarter of FY 2010. Analysis of July data shows that TSA's May 2010 75-percent screening requirement was achieved with respect to cargo transported on flights of passenger aircraft originating within the United States. Analysis of August and September data shows that the August 2010 100-percent screening mandate has now been achieved with respect to cargo transported on flights of passenger aircraft originating within the United States.[2]

Cargo Uplifted on Flights Originating Within the United States and Territories[3]

Month	% MAWB Screened	% Weight Screened (lbs)
July 2010	94%	83%
August 2010[2]	100%	100%
September 2010[2]	100%	100%
Q4 FY 2010 Total	98%	94%
Q3 FY 2010 Total	94%	83%

Cargo Uplifted on Inbound Flights Originating Outside the United States and Territories

Month	Weight Uplifted (lbs)	Weight Screened (lbs)[3]	% Weight Screened (lbs)
July 2010	221,384,517	180,091,909	81%
August 2010	211,018,823	181,080,016	86%
September 2010	217,502,901	188,858,682	87%
Q4 FY 2010 Total[4]	649,906,241	550,030,607	85%
Q3 FY 2010 Total[5]	668,369,848	401,057,807	60%

[2] Calculations of reported data show that 99.9 percent of the cargo shipments (MAWB) and weight were screened in August and September 2010. TSA is addressing the less than 0.1-percent rate of non-compliance.
[3] The amount of cargo screened includes sensitive cargo subject to alternate security measures.
[4] For Q4 FY 2010, TSA began using cargo screening data provided by carriers reporting from an LPD to compile inbound cargo screening statistics.
[5] TSA used an estimate for Third Quarter (Q3) FY 2010 data based on BTS Q3 FY 2009 data. BTS data used previously to report screening estimates do not include sensitive cargo subject to alternate security measures.

B. Domestic Air Carrier Statistics – All Airports

Air carriers operating domestically reported cargo screening data to TSA pursuant to their security programs. Analysis of July data shows that TSA's May 2010 75-percent screening requirement was achieved with respect to cargo transported on flights of passenger aircraft originating within the United States. Analysis of August and September data shows that the August 2010 100-percent screening mandate has been achieved with respect to cargo transported on passenger flights originating within the United States. A summary of these statistics follows.

Cargo Uplifted on Flights Originating Within the United States and Territories[6]

Month	# MAWB Uplifted	Weight Uplifted (lbs)	# MAWB Screened[7]	Weight Screened (lbs)
July 2010	449,423	276,764,395	423,830	230,543,906
August 2010[8]	448,055	265,002,937	447,614	264,859,934
September 2010[8]	453,392	274,796,629	453,104	274,213,525
Q4 FY 2010 Total	1,350,870	816,563,961	1,324,548	769,617,365
Q3 FY 2010 Total[9]	1,338,923	825,432,361	1,259,275	684,067,453
Q4 FY2010 August and September[8]			**Q4 FY2010 Total**	
100 percent of MAWB screened			**98 percent of MAWB screened**	
100 percent of weight screened			**94 percent of weight screened**	

[6] These data include screening from Category X, I, II, III, and IV airports.
[7] Cargo screened includes sensitive cargo subject to alternate security measures.
[8] The difference between the reported # of MAWB uplifted and MAWBs screened is the rate of non-compliance, which is less than 0.1 percent. TSA is addressing this non-compliance.
[9] Data reported in Q3 are updated to include sensitive cargo subject to alternate security measures.

Cargo Screening Distribution for July, August, and September 2010

(b)(3):49 U.S.C. § 114(r)

C. Domestic Certified Cargo Screening Program

IACs, shippers, and other entities screening cargo for uplift on domestic passenger flights as CCSFs also reported cargo screening data to TSA pursuant to their program/order requirements. A summary of these data follows. These numbers are included in cargo data reported by air carriers.

CCSF-IAC Shipments Uplifted on Flights Originating Within the United States and Territories

Month	# of IACs Required to Screen[10]	# of MAWB Screened	Weight Screened (lbs)
July 2010	402	56,857	97,787,841
August 2010	428	97,231	131,450,444
September 2010	448	88,134	134,534,465
Q4 FY 2010 Total	448	242,222	363,772,750
Q3 FY 2010 Total	391	178,457	308,120,685

CCSF (Non-IAC) Shipments Uplifted on Flights Originating Within the United States and Territories

Month	# of Non-IAC Required to Screen[11]	# of House Air Way Bills Screened	Weight Screened (lbs)
July 2010	241	103,218	14,231,858
August 2010	287	125,624	23,065,179
September 2010	339	126,250	24,078,526
Q4 FY 2010 Total	339	355,092	61,375,563
Q3 FY 2010 Total	209	118,632	26,945,401

[10] IACs must screen 90 days after certification. The data collected for the *# of CCSF IACs Required to Screen* in this table are for each CCSF facility. Under this column, the figure represented at *Q4 FY 2010 Total* is a cumulative total of the number of IACs that are required to screen cargo at the end of the quarter; whereas, the figures associated with July, August, and September 2010 represent a running total of the number of IACs that are required to screen cargo as of that month.

[11] Non-IAC CCSFs must screen 90 days after certification. The data collected for the *# of CCSF (Non-IACs) Required to Screen* in this table are for each CCSF facility. Under this column, the figure represented at *Q4 FY 2010 Total* is a cumulative total of the number of CCSFs (Non-IACs) that are required to screen cargo at the end of the quarter; whereas, the figures associated with July, August, and September 2010 represent a running total of the number of CCSFs (Non-IACs) that are required to screen cargo as of that month.

D. International Last Point of Departure Screened Cargo

Effective May 1, 2010, both domestic and foreign air carriers operating in international locations with an LPD flight into the United States must report cargo screening data to TSA pursuant to their security programs. An analysis of July, August, and September statistics follows.

Historically, domestic and foreign air carriers were not required to report cargo screening data for flights entering the United States from an international LPD. Previously, TSA used the historical data from BTS; however, as of this reporting period, TSA is calculating the amount of cargo and the percentage of screened inbound cargo by air carriers from LPD locations.

During this reporting period, TSA collected actual data from air carriers during the months of July, August, and September 2010. These statistics indicate that 649,906,241 pounds of air cargo entered the United States aboard passenger aircraft. It is estimated that 550,030,607 pounds (85 percent) of total cargo were screened before uplift from an LPD into the United States. This is up from an estimated 60 percent of screened cargo identified in the previous quarterly report.

International Inbound (LPD into the United States)[12, 13]

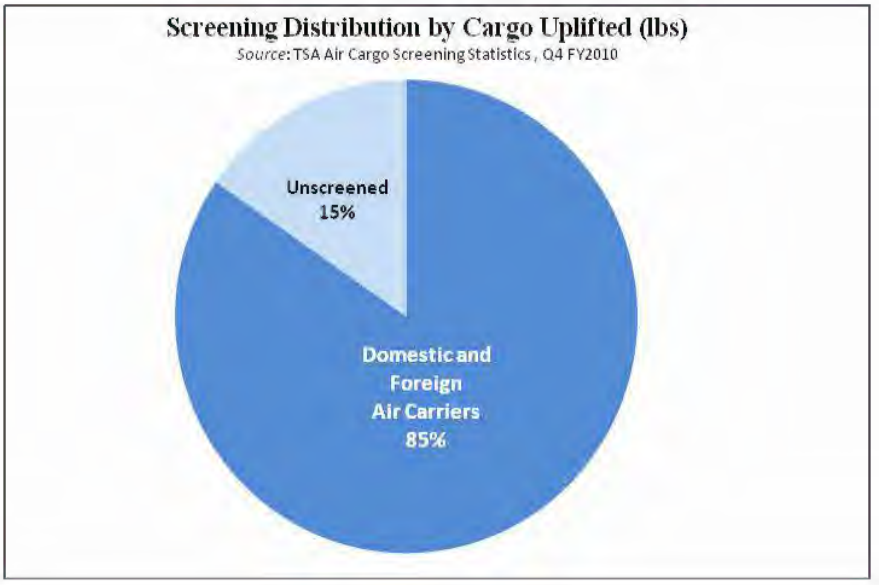
Month	Weight Uplifted (lbs)	Weight Screened (lbs)[14]	% Weight Screened (lbs)
July 2010	221,384,517	180,091,909	81%
August 2010	211,018,823	181,080,016	86%
September 2010	217,502,901	188,858,682	87%
Q4 FY 2010 Total	649,906,241	550,030,607	85%
Q3 FY 2010 Total[15]	668,369,848	401,057,807	60%
Q4 FY2010 **85 percent of weight screened**			

[12] For Q4 FY 2010, TSA began using cargo screening data provided by carriers reporting from an LPD to compile inbound cargo screening statistics.
[13] TSA used an estimate for Q3 FY 2010 data based on BTS Q3 FY 2009 data.
[14] Weight screened in pounds includes sensitive cargo subject to alternate security measures.
[15] BTS data used previously to report screening estimates do not include sensitive cargo subject to alternate security measures.

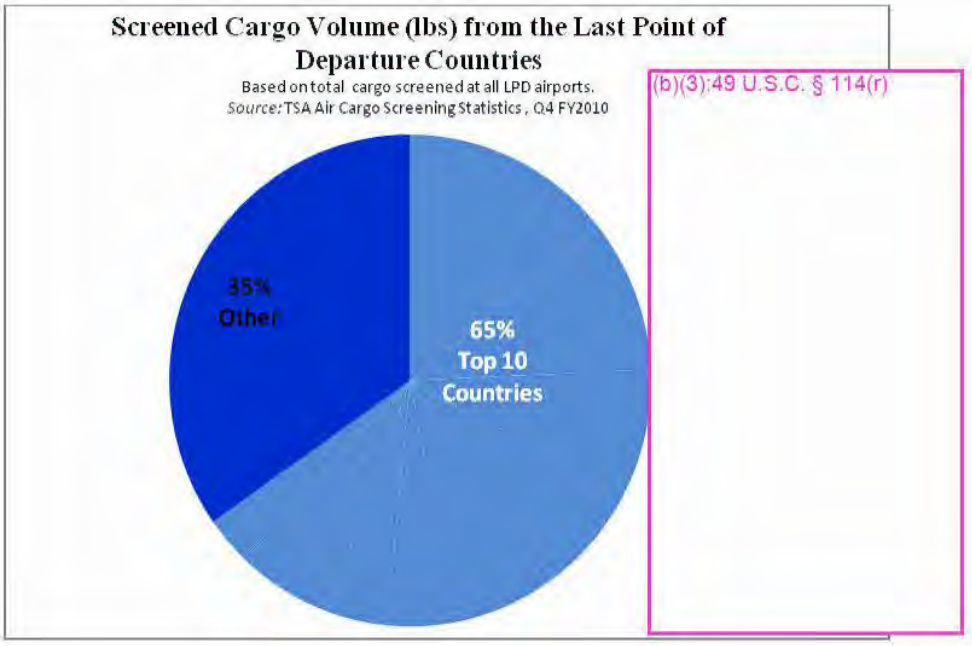
July, August, and September 2010 Screening Statistics for LPD flights

Volume (lbs)

Of approximately 650 million pounds of air cargo entering the United States, 85 percent screened by weight



Number of Countries
84 countries were last points of departure
for inbound air cargo



IV. Appendices

A. Cargo Screening Data by Cat X, I, and Air Carrier

BY AIRPORT CATEGORY X, I, AND AIR CARRIERS

Compliance	Total Uplifted	Total Screened	% Screened
# Of MAWB	1,272,162	1,246,197	98%
Cargo Weight (lbs)	806,551,128	759,673,755	94%

TSA CARGO SCREENING RESULTS ON 100 PERCENT REPORTING BY PASSENGER AIR CARRIERS DEPARTING FROM U.S. AIRPORTS

Reporting Period: FY2010-Q4 (July, August, and September 2010)
Data included in report by carriers submitting usable data to TSA.

July data were calculated on the basis of requirement to screen 75 percent of cargo placed on passenger aircraft, effective on May 1, 2010.
August and September data were calculated on the basis of requirement to screen 100 percent of cargo placed on passenger aircraft, effective on August 1, 2010.

NOTE: Figures in this chart have been rounded; therefore, column totals may not equal the sum of the numbers displayed in each column.
*MAWB and weight screened include sensitive cargo subject to alternate security measures.

Summary of Q4 Data	MAWB Uplifted	Weight Uplifted (lbs)	MAWB Screened	Weight Screened (lbs)	% MAWB Screened*	% Weight Screened (lbs)*
Grand Total	1,272,162	806,551,128	1,246,197	759,673,755	97.96%	94.19%

Airport Code	Airport Name	Carrier Name	MAWB Uplifted	Weight Uplifted (lbs)	MAWB Screened	Weight Screened (lbs)	% MAWB Screened*	% Weight Screened (lbs)*

(b)(3):49 U.S.C. § 114(r)

Airport Code	Airport Name	Carrier Name	MAWB Uplifted	Weight Uplifted (lbs)	MAWB Screened	Weight Screened (lbs)	% MAWB Screened*	% Weight Screened (lbs)*

(b)(3):49 U.S.C. § 114(r)

Airport Code	Airport Name	Carrier Name	MAWB Uplifted	Weight Uplifted (lbs)	MAWB Screened	Weight Screened (lbs)	% MAWB Screened*	% Weight Screened (lbs)*
(b)(3):49 U.S.C. § 114(r)								

Airport Code	Airport Name	Carrier Name	MAWB Uplifted	Weight Uplifted (lbs)	MAWB Screened	Weight Screened (lbs)	% MAWB Screened*	% Weight Screened (lbs)*
(b)(3):49 U.S.C. § 114(r)								

Airport Code	Airport Name	Carrier Name	MAWB Uplifted	Weight Uplifted (lbs)	MAWB Screened	Weight Screened (lbs)	% MAWB Screened*	% Weight Screened (lbs)*

(b)(3):49 U.S.C. § 114(r)

B. International Inbound Cargo Screening Data by Country and Air Carrier

BY COUNTRY AND AIR CARRIERS

Q4 Compliance	Uplifted	Screened	% Screened
Cargo Weight (lbs)	649,906,241	550,030,607	84.6%

TSA INTERNATIONAL INBOUND CARGO SCREENING RESULTS REPORTED BY PASSENGER AIR CARRIERS

Today's Date: December 14, 2010
Updated: April 4, 2011

Reporting Period: FY2010-Q4

Data included in report by carriers submitting usable data to TSA.

Sorted by cargo weight uplifted (lbs) and view of the top five countries and carriers with subtotals displayed.
**Weight screened includes sensitive cargo subject to alternate security measures.*

Country	Carrier Name	Weight Uplifted (lbs)	Weight Screened (lbs)*	% Weight Screened (lbs)
Grand Total		649,906,242	550,030,607	84.63%

(b)(3):49 U.S.C. § 114(r)

Country	Carrier Name	Weight Uplifted (lbs)	Weight Screened (lbs)*	% Weight Screened (lbs)

(b)(3):49 U.S.C. § 114(r)

Country	Carrier Name	Weight Uplifted (lbs)	Weight Screened (lbs)*	% Weight Screened (lbs)

(b)(3):49 U.S.C. § 114(r)

Country	Carrier Name	Weight Uplifted (lbs)	Weight Screened (lbs)*	% Weight Screened (lbs)

(b)(3):49 U.S.C. § 114(r)

Country	Carrier Name	Weight Uplifted (lbs)	Weight Screened (lbs)*	% Weight Screened (lbs)

(b)(3):49 U.S.C. § 114(r)

Air Cargo 100-Percent Screening

Fiscal Year 2010 Report to Congress

December 17, 2010

Homeland Security

Transportation Security Administration

Message from the Administrator

December 17, 2010

I am pleased to present the following report, "Air Cargo 100-Percent Screening," prepared by the Transportation Security Administration, detailing the strategy and progress for meeting the 100-percent screening deadline detailed in the *Implementing Recommendations of the 9/11 Commission Act of 2007* (P.L. 110-53). The report has been developed in response to a legislative requirement in the Joint Explanatory Statement that accompanies the *Fiscal Year 2010 Department of Homeland Security Appropriations Act* (P.L. 111-83).

Pursuant to congressional requirements, this report is being provided to the following Members of Congress:

The Honorable David E. Price
Chairman, House Appropriations Subcommittee on Homeland Security

The Honorable Harold Rogers
Ranking Member, House Appropriations Subcommittee on Homeland Security

The Honorable Frank R. Lautenberg
Interim Chairman, Senate Appropriations Subcommittee on Homeland Security

The Honorable George V. Voinovich
Ranking Member, Senate Appropriations Subcommittee on Homeland Security

Inquiries relating to this report may be directed to me at (571) 227-(b)(6) or to the Department's Deputy Chief Financial Officer, Peggy Sherry, at (b)(6)

Sincerely yours,

John S. Pistole
Administrator
Transportation Security Administration

Executive Summary

The *Aviation and Transportation Security Act* (P.L. 107-71) charges the Transportation Security Administration (TSA) with the enforcement of statutory and regulatory requirements for ensuring the security of transportation systems and passengers, including when cargo is transported by air.

The *Implementing Recommendations of the 9/11 Commission Act of 2007* (9/11 Act) (P.L. 110-53), among other things, directed the Department of Homeland Security (DHS) to establish, by August 2010, a system to screen 100 percent of all cargo aboard passenger aircraft departing U.S. airports (domestic uplift) and destined for U.S. airports from foreign last points of departure (international inbound), at a level of security commensurate with the security level for passenger-checked baggage. Specifically, the 9/11 Act included a requirement for 50-percent screening of cargo aboard passenger aircraft by February 2009; this deadline was met for both domestic uplift and inbound air cargo. The deadline of August 2010 for 100-percent screening of cargo aboard passenger aircraft originating at domestic airports was also met.

The 9/11 Act permits DHS to include a program to certify the security methods used by shippers to accomplish the mandate. To meet the 100-percent screening deadline, TSA developed a system to screen 100 percent of cargo aboard passenger aircraft originating at domestic airports that minimizes disruptions to the flow of commerce. Under the Certified Cargo Screening Program (CCSP), the responsibility of screening is distributed across the supply chain to mitigate cargo bottlenecks at airports.

TSA's approach to implementing the 100-percent screening system for air cargo transported on commercial passenger aircraft originating at domestic airports contains the following elements:

- Standard Security Program (SSP) Requirements
- CCSP Development and Implementation
- Screening Technology Pilot
- Interim Final Rule and Final Rule Publication
- Program Compliance Efforts
- CCSP Outreach Initiatives
- TSA-certified Explosives Detection Canine Team Screening

TSA's progress toward ensuring that the 100-percent air cargo directive is met is highlighted by the following major accomplishments:

- 100-percent Screening of Cargo Placed on Passenger Aircraft Originating at Domestic Airports on August 1, 2010
- Certification of 1,140 Certified Cargo Screening Facilities as of November 3, 2010

In FY 2010, TSA focused air cargo resources on continued implementation of the CCSP by:

- Increasing cargo inspection resources to educate industry and enforce the 100-percent screening requirement
- Increasing the number of canine screening teams at airports that handle a high volume of cargo
- Testing, evaluating, and qualifying existing technologies for use in complying with the screening requirement for specific commodities
- Deploying approved skid-level and palletized screening technologies, such as vapor detection and metal detection
- Increasing industry outreach to promote adequate levels of shipper and Indirect Air Carrier participation to help industry achieve the mandate with minimal impact on the air cargo supply chain

The international inbound component of the screening mandate presents significant challenges, which have been briefed to Congress, the Government Accountability Office (GAO), and our international partners. To address these challenges, TSA has put forth an international inbound strategy and timeline to increase screening requirements for inbound international air cargo.

This approach contains the following elements:

- Increasing screening requirements in TSA's SSPs to 100 percent for inbound air cargo
- National Cargo Security Program recognition
- International efforts focusing on strengthening air cargo security standards through information sharing and direct multilateral and bilateral engagement

As a result of the recently disrupted plot to transport explosive devices on inbound air cargo on October 29, 2010, TSA has taken immediate steps to further secure the air cargo supply chain with air carriers, foreign air carriers, and all-cargo carriers. TSA will continue to evaluate these near-term and longer-term measures and will implement them through the appropriate processes.

Air Cargo 100-Percent Screening

Table of Contents

I. Legislative Language

Section 1602 of the *Implementing Recommendations of the 9/11 Commission Act of 2007* (9/11 Act), amends Section 44901 of Title 49 U.S.C. by adding a new subsection 49 U.S.C. 44901(g). This new subsection states in part:

> **(1)** . . . Not later than 3 years after the date of enactment of the Implementing Recommendations of the 9/11 Commission Act of 2007, the Secretary of Homeland Security shall establish a system to screen 100 percent of cargo transported on passenger aircraft operated by an air carrier or foreign air carrier in air transportation or intrastate air transportation to ensure the security of all such passenger aircraft carrying cargo. (emphasis added)

Subsequently, the Joint Explanatory Statement accompanying Section 514(c) of the *Fiscal Year* (FY) *2010 Department of Homeland Security* (DHS) *Appropriations Act* (P.L. 111-83) stated:

> Not later than 180 days after the date of the enactment of this Act, the Assistant Secretary shall submit to the Committees on Appropriations of the Senate and the House of Representatives, a report on how the Transportation Security Administration plans to meet the requirement for screening all air cargo on passenger aircraft by the deadline under section 44901(g) of title 49, United States Code. The report shall identify the elements of the system to screen 100 percent of cargo transported between domestic airports at a level of security commensurate with the level of security for the screening of passenger checked baggage.

This report fulfills the requirement of Section 514(c) of P.L. 111-83.

II. Background

The 9/11 Act mandates screening of 100 percent of all air cargo transported aboard passenger aircraft departing U.S. airports (domestic uplift) and destined for U.S. airports from foreign last points of departure (international inbound) to provide a level of security commensurate with that of passenger-checked baggage by August 2010. To facilitate compliance with this requirement, Congress established an intermediate requirement of 50-percent screening by February 2009, which was met for both domestic air cargo and inbound air cargo. The deadline of August 2010 for 100-percent screening for domestic uplift also was met.

Since FY 2008, the Transportation Security Administration (TSA) has implemented several initiatives to achieve 100-percent screening of air cargo on commercial aircraft originating from domestic airports. These initiatives include: 1) standard security program (SSP) requirements, 2) the Certified Cargo Screening Program (CCSP), 3) the Screening Technology Pilot (STP), and 4) canine screening.

In FY 2010, TSA advanced the implementation of these initiatives and other cargo inspection and screening technology programs, to meet the August 2010 deadline of 100-percent screening for passenger planes originating domestically. These initiatives included:

- Implementation and development of the CCSP
- Deployment of 50 additional Transportation Security Inspectors-Cargo (TSI-Cs) to augment current staff levels focused on high-cargo volume, high-risk airports
- Deployment of an additional 35 TSA proprietary canine teams transitioned from current legacy (state/local) teams[1]
- Testing, evaluation, approval, and qualification of existing technologies for use in air cargo screening to assist the perishable products industry and others in complying with new cargo screening requirements
- Development of skid-level screening technologies, including vapor detection and metal detection technologies

[1] This deployment is based on authority provided in the *FY 2007 U.S. Troop Readiness, Veterans' Care, Katrina Recovery and Iraq Accountability Appropriations Act* (P.L. 110-28).

The international inbound component of the screening mandate presents significant challenges, which have been briefed to Congress, the Government Accountability Office (GAO), and our international partners. To address these challenges, TSA has put forth an international inbound strategy and timeline to increase screening requirements, based on risk, for inbound international air cargo.

As a result of the recently disrupted plot to transport explosive devices on inbound air cargo on October 29, 2010, TSA has taken immediate steps to further secure the air cargo supply chain with air carriers, foreign air carriers, and all-cargo carriers. TSA will continue to evaluate these near-term and longer-term measures and will implement them through the appropriate processes.

III. Strategy

To satisfy the air cargo screening requirements of the 9/11 Act, TSA implemented screening requirements that enable secure cargo screening off-airport (for example, at aviation-related facilities not located on airport grounds throughout the supply chain) by shippers, manufacturers, distributors, Indirect Air Carriers (IACs), and Independent Certified Screening Facilities (ICSFs). The major initiatives associated with this strategy include revisions to the SSPs for regulated entities, the CCSP, and the air cargo interim final rule. TSA has also instituted industry cargo screening reporting requirements and a robust compliance inspection regimen to monitor and ensure progress toward achievement of the air cargo screening mandate.

A. SSP Revision

A series of revisions to SSPs regulating aircraft operators and foreign air carriers has prepared industry for the 100-percent screening deadline.

1. 100-Percent Screening on Narrow-Body Aircraft

Effective October 2008, TSA required 100-percent screening of cargo transported on narrow-body passenger aircraft departing from U.S. airports. Although this accounts for only 24.4 percent of domestically originating cargo, it protects 96.8 percent of U.S. originating passenger flights and 90.9 percent of overall U.S. originating passenger travel.[2] Implementation of this interim requirement significantly reduced the risk posed by unscreened cargo to passengers traveling on U.S. originating flights.

2. 50-Percent Screening Requirement

Effective February 1, 2009, TSA required 50-percent screening for cargo uplifted on flights departing from domestic airports as required by the 9/11 Act and added the ability for aircraft operators and air carriers to accept cargo from a Certified Cargo Screening Facility (CCSF). This represented a major milestone in the implementation of TSA's strategy for securing the air cargo supply chain. Security programs implementing this milestone were published in December 2008.

[2] These percentages represent 2008 figures, as reported by the Bureau of Transportation Statistics.

3. 75-Percent Screening Requirement

Effective May 1, 2010, TSA instituted an interim 75-percent screening requirement for cargo transported on passenger aircraft per airline per airport departing from U.S. airports. Security programs implementing this milestone were published in March 2010.

4. 100-Percent Screening Requirement

TSA issued security program updates establishing the 100-percent screening requirement for cargo transported on passenger aircraft departing U.S. airports that was effective on August 1, 2010. Security programs containing this mandate were published in March 2010, and this milestone was achieved on August 1, 2010.

B. Certified Cargo Screening Program

1. Background (Supply Chain Approach)

To satisfy the air cargo screening requirements as required by the 9/11 Act, TSA implemented screening regimens that enable cargo screening by additional participants throughout the air cargo supply chain, including certified IACs, shippers, and ICSFs.

2. Advantages of the Supply Chain Approach

Moving screening up the supply chain allows industry to achieve 100-percent screening without impeding the flow of commerce. The supply chain approach enables cargo screening to occur earlier in the air cargo supply chain at off-airport, trusted, vetted, and assessed facilities. This approach provides industry or CCSFs with the flexibility to choose the best, most cost-effective course of action in the supply chain to screen cargo.

3. Interim Final Rule (IFR) Requirements

On September 16, 2009, TSA published the Air Cargo Screening IFR with an effective date of November 16, 2009, which established the regulatory framework for the CCSP. The IFR defines cargo screening and specifies that U.S. aircraft operators and foreign air carriers are responsible for meeting the 50- and 100-percent screening deadlines. Major elements of the CCSP include:

- **Security:** Extensive vetting and training of screening facility personnel, including expanded Security Threat Assessment (STA) requirements for certain CCSP personnel, a requirement for all parties (including current STA holders) to renew the STA every 5 years, and strict requirements for facility security.

- **Validation:** Requirement that each facility submits to an independent assessment by a TSA-approved validation firm that meets established corporate eligibility, personnel qualifications, and background check requirements.
- **Screening:** Detailed program requirements and procedures for physical searches during the packaging process, as well as strict protocols for the use of screening technology, such as X-ray and Explosives Trace Detection (ETD). (Almost all certified shippers use physical searches; IACs [freight forwarders] tend to use technology to perform screening.)
- **Chain of Custody:** Use of TSA-approved tapes, locks, and seals, along with stringent procedures for maintaining a secure chain of custody from the moment cargo is screened until it is delivered to an air carrier for uplift on passenger aircraft.

4. Program Implementation

Shippers, in general, are not regulated by TSA. Shippers who volunteer to be certified under the CCSP are regulated under the IFR. Under the IFR, TSA is developing an SSP [the CCSSP] that will have security and chain of custody standards that are similar to those in the SSPs currently issued to IACs and aircraft operators. Unlike shippers, IACs are already regulated by TSA, and thus upon joining the CCSP, the SSP applicable to these entities will be amended.

5. Final Rule Development

In response to stakeholder comments, TSA is considering changes to the regulations. TSA expects to publish the Final Rule in March 2011.

6. Facility Certification Numbers

As of November 3, 2010, TSA has certified 1,140 CCSFs.

C. Screening Technology Pilot

1. Background

The Screening Technology Pilot (STP) was designed to achieve three key goals:

- Assist industry in achieving screening requirements of the 9/11 Act by creating screening capacity at IACs and ICSFs
- Measure the effectiveness of select screening technologies on various commodity classes

- Evaluate chain-of-custody procedures for screened cargo as it moves from the IAC or ICSF to the air carrier

In exchange for limited reimbursement of technology costs, participants in the STP submitted monthly data reports detailing CCSP-related costs and information about technology suitability and effectiveness in the cargo environment. In addition, STP participants allowed TSA to conduct extensive analysis about the impact that the CCSP has had on their cargo flow, supply chain, and business operations.

The STP represents a large roll-out of screening technologies beyond the air carrier level, including X-ray and ETD equipment. By the completion of the pilot, more than 120 X-rays and more than 250 ETDs were deployed, including 47 large-aperture, Advanced Technology (AT) X-ray systems capable of screening cargo loaded on skids that contain certain commodities. It is anticipated that the STP analysis will demonstrate the importance and benefit of screening technology to CCSFs, thereby facilitating the broader adoption of time-saving and volume-maximizing devices throughout the supply chain.

2. STP Participant Screening Percentages

In July 2010, STP participants screened more than 72 million pounds of cargo intended for uplift on passenger aircraft departing U.S. airports. This contribution represents 64 percent of all cargo screened by CCSFs and 33 percent of all domestically screened cargo uplifted on passenger aircraft departing U.S. airports. As of July 2010, the number of STP participants represented 12 percent of all certified facilities, including many of the largest participants.

D. TSA-Certified Explosives Detection Canine Teams

In the air cargo environment, TSA currently employs two types of canine teams to screen cargo destined for transport on passenger aircraft: teams led by local law enforcement officers (LEOs) and proprietary teams (Federal teams) led by TSA cargo inspectors. As of October 25, 2010, a total of 586 canine teams (466 local LEO-led canine teams and 120 authorized federally led canine teams) are deployed at 78 airport locations within the United States.

78 Canine Team Locations

1. LEO Canine Teams

TSA uses 466 local LEO-led canine teams who spend approximately 25 percent of their time in the air cargo environment and associated facilities providing law enforcement presence and screening air cargo.

Location and Number of LEO Canine Teams

Locations	Team Numbers	Locations	Team Numbers	Locations	Team Numbers
ABQ	(b)(3):49 U.S.C. § 114(r)	FLL	(b)(3):49 U.S.C. § 114(r)	PAPD & JFK	(b)(3):49 U.S.C. § 114(r)
ANC		GSN		PBI	
ATL		GSO		PDX	
AUS		GUM		PHL	
BDL		HNL		PHX	

Location and Number of LEO Canine Teams

Locations	Team Numbers	Locations	Team Numbers	Locations	Team Numbers
BGR	(b)(3):49 U.S.C. § 114(r)	HPD	(b)(3):49 U.S.C. § 114(r)	PIT	(b)(3):49 U.S.C. § 114(r)
BHM		IND		PVD	
BNA		JAX		ROC	
BOI		LAS		RNO	
BOS		LAX		RSW	
BUF		LIT		SAN	
BWI		MCI		SAT	
CLE		MCO		SDF	
CLT		MEM		SEA	
CMH		MHT		SFO	
COS		MIA		SJC	
CPD		MKE		SJU	
CVG		MSP		SLC	
DAL		MSY		SMF	
DAY		MWAA & DCA		SNA	
DEN		OAK		STL	
DFW		OMA		STT	
DTW		ONT		TPA	
ELP		ORF		TUL	
				TUS	
Grand Total					**466**

2. TSA Proprietary Canine Teams

TSA proprietary canine teams are primarily dedicated to screening air cargo at high-volume air cargo facilities to enhance air cargo security and facilitate achieving the 100-percent congressional mandate. TSA has authorized 120 teams, and the teams are being deployed to airports on the basis of cargo volume. Although screening by air carriers and the CCSP are the primary means to achieve 100-percent air cargo screening, these teams are an important addition to the program.

As of October 2010, 115 teams had been hired, of which 110 teams have been deployed at the top 20 airports by passenger cargo volumes. All teams are in various levels of training; 82 teams

are considered *certified* to screen cargo, meaning air carriers may count cargo screened by these certified teams as screened cargo.

Certified Proprietary Canine Teams

Airport	Total Allocation	Certified
ANC	(b)(3):49 U.S.C. § 114(r)	
ATL		
BOS		
DEN		
DFW		
DTW		
EWR		
GUM		
HNL		
IAD		
IAH		
JFK		
LAX		
MCO		
MIA		
ORD		
PHL		
SEA		
SFO		
SJU		
Total	**120**	**82**

As part of the layered security approach, the canine teams conduct routine security sweeps for the detection or deterrence of explosive threats where cargo is staged, consolidated, or otherwise prepared for transport. The canine teams conduct random patrols at various areas within the cargo environment during both peak and non-peak hours. Although teams are available on a 24-hour/7-day on-call basis, the majority of screening time will be on a random basis.

A variety of factors impact canine screening statistics, including when a team is certified, the level of acclimation assistance required by area teams, and the amount of cargo available to be screened at any given time (which can vary seasonally by airport). The following graphs show the month-to-month trends in TSA proprietary canine screening overall for FY 2010.

Certified Proprietary Canine Team Screening by Month

(b)(3):49 U.S.C. § 114(r)

Certified Proprietary Canine Team Screening by Hour

(b)(3):49 U.S.C. § 114(r)

Certified Proprietary Canine Team Screening by Cargo Pieces

(b)(3):49 U.S.C. § 114(r)

E. Cargo Screening Distribution/Reporting

1. Reporting Requirements Explanation

The *FY 2007 DHS Appropriations Act* (P.L. 109-295), enacted on October 4, 2006, states:

> TSA shall report air cargo screening statistics quarterly to the committees on Appropriations of the Senate and the House of Representatives, by airport and passenger air carrier …

This reporting requirement is continued by Section 514 of P.L. 111-83. To implement this requirement, TSA issued a series of updates to air carrier security programs requiring air carriers and CCSP participants to submit cargo statistics monthly. The statistics derived from these submissions are the basis for TSA's reporting to Congress. Effective February 2009, TSA adjusted air carrier reporting requirements and added CCSF reporting requirements to include monthly screening reports on the number and weight of shipments screened. On the basis of this reporting, TSA has determined that 100 percent of air cargo (by weight and number of shipments) transported on domestic passenger aircraft has been screened since the 100-percent requirement went into effect.

2. Total Screening Percent Growth

Cargo Uplifted on Flights Originating Within the United States and Territories

Month	Percent of Cargo Screened by Weight	Percent of Cargo Screened by Shipment (MAWB*)
April 2010	70 percent	77 percent
May 2010	83 percent	81 percent
June 2010	82 percent	79 percent
Q3 FY 2010 Total	78 percent	79 percent
Q2 FY 2010 Total	66 percent	75 percent

* MAWB: Master Air Waybill

F. Industry Compliance

TSA TSI-Cs perform compliance inspections, including special emphasis inspections, focused inspections, air cargo strikes (weeklong compliance enforcement surges focused on IACs, air carriers, and CCSFs within a single metropolitan area), investigations, and tests of air carriers and IACs. TSA TSI-Cs also perform educational outreach to assist air carriers and IACs in complying with air cargo security mandates. TSI-Cs are located at 121 airports in the United States.

1. Major Initiatives

In FY 2010, TSA TSI-Cs executed their mission as follows:

2. Compliance Risk Assessment

In FY 2010, TSI-Cs conducted more than 48,000 inspections at almost 10,000 cargo facilities. TSA assigns each facility a risk score based on factors such as compliance with TSA security programs, enforcement investigations, and intelligence information. (b)(3):49 U.S.C. § 114(r)

(b)(3):49 U.S.C. § 114(r)

FY 2010 Compliance Risk Update

During FY 2010 more than 48,837 inspections were conducted, resulting in:

	Start of Year	End of Year	% Change
High Risk Entities	4,241	2,669	58.9% 1,572
Medium Risk Entities	3,938	2,507	57.1% 1,431
Low Risk Entities	4,193	8,481	102% 4,288
Average Risk Score	45.32	15.90	64.9% 29.4

(b)(3):49 U.S.C. § 114(r)

3. TSI-C Staffing Levels

In FY 2010, TSA hired an additional 50 TSI-Cs at airports across the United States. This hiring effort augmented the current staffing level and allowed the TSA Office of Security Operations to increase the number of inspections it conducted at high-cargo-volume, high-risk airports. Also, the staffing increase supported oversight and inspections of CCSP participants, as well as assessments of industry compliance with the 100-percent air cargo screening mandate. At the end of FY 2010, TSA's total allocation of TSI-Cs was 500 (not including canine team handlers). In addition, TSA employs 10 international air cargo inspectors who assess international airports and facilities.

FY 2010 Additional 50 TSI-C Locations

4. Special Emphasis Inspections and Focused Inspections

Special Emphasis Inspections (SEIs) are inspections that focus on areas of air cargo security that have been identified as vulnerabilities through regular inspection efforts. SEIs involve both covert and overt tests, coordinated inspections, and when appropriate, more robust enforcement actions. (b)(3):49 U.S.C. § 114(r) The results of SEIs are used to identify a baseline of compliance within the specific vulnerabilities to assist in driving future TSA cargo security inspection and testing activity. Numerous SEIs are conducted from year to year to ascertain if efforts are improving the compliance rates.

TSA conducted quarterly SEIs that focused on realistic scenarios and identified vulnerabilities. TSA completed the same SEIs in FYs 2009 and 2010 so that it could compare year-to-year compliance trends and TSI-C effectiveness. As indicated in the following chart, the compliance rate improved for all four areas tested in FY 2010.

SEI	FY2009	FY2010
STA Inspections	(b)(3):49 U.S.C. § 114(r)	
Alternative Screening/Medical Shipments		
Invalid IAC Certificates		
Access Controls		

In addition to the SEIs listed in the chart, TSA conducted an SEI on international inbound cargo to verify airline compliance with new TSA screening requirements for cargo transported into the United States on passenger aircraft. These procedures increased the amount of cargo that needed to be screened and also set forth an additional requirement for inbound cargo that would be flown on an additional passenger air leg once it arrived in the United States. Domestic TSI-Cs were directed to inspect cargo as it was unloaded at the airport of arrival in the United States to assess if screening requirements were, in fact, met and to ensure that, if an additional domestic passenger air leg was to take place, applicable requirements were applied. This SEI resulted in (b) findings out of 251 inspections. TSA used these results as a basis for increased outreach with the airlines regarding screening requirements at non-U.S. airports.

TSI-Cs also tested cargo acceptance requirements under the Known Shipper Program throughout the year. The domestic Known Shipper Program sets forth requirements permitting only cargo received from persons that are identified as Known Shippers to be transported on passenger aircraft. Known Shippers must be vetted by TSA, the IAC, or the air carrier before receiving the status of a "Known Shipper."

In FY 2010, domestic TSI-Cs conducted approximately 10,000 small package tests. The result of these small package tests was a national compliance rate of (b) percent. Whenever there was an identified failure, TSI-Cs conducted a regulatory investigation to determine the cause of the non-compliance, including referring potential criminal cases to TSA's Office of Inspections. All small package test failures are referred to TSA criminal investigators to ensure the failure was not based on intentional circumvention of TSA security requirements. If no criminal nexus was

identified, TSI-Cs would pursue normal TSA investigations and enforcement actions as necessary.

5. Air Cargo Strike Enhancement/Augmentation

Cargo Strikes are weeklong compliance enforcement surges focused on IACs, air carriers, and CCSFs in a single metropolitan area. Several Cargo Strikes occur each month, and most top cargo volume airports undergo multiple strikes each year. Recent enhancements to the Cargo Strike program include:

- Routine TSA Office of Intelligence briefings related to cargo
- Emphasis on direct observation of cargo screening
- Playbook operations in an air cargo environment—a mobile screening checkpoint for personnel in secure cargo areas
- Security Identification Display Area badge audits
- Addition of TSA Office of Inspections, TSA Proprietary Canine teams, and TSA Transportation Security Officers to cargo strike teams (many teams also include Federal, State, and local stakeholders, as well as law enforcement)
- Introduction of Visible Intermodal Prevention and Response (and related) activity

FY 2010 Cargo Strikes occurred at the following airports:

Airport Code	Airport Name
ALB	Albany International Airport
BOS	Logan International
BUR	Bob Hope Airport
CVG	Cincinnati/Northern Kentucky International
DAL	Dallas Love Field
DEN	Denver International
DFW	Dallas/Fort Worth International
EWR	Newark International
HNL	Honolulu International
HOU	Hobby Airport
IAH	Houston Intercontinental
ITO	Hilo International Airport
JFK	John F. Kennedy International
KOA	Kona International Airport
LAS	McCarran International
LAX	Los Angeles International
LGB	Long Beach Airport

Airport Code	Airport Name
LGA	LaGuardia
LIH	Lihue Airport
MCI	Kansas City International
MIA	Miami International
MSP	Minneapolis-St. Paul International
OGG	Kahului Airport
ONT	Ontario International
ORD	Chicago-O'Hare International
PIT	Pittsburgh International
SEA	Seattle-Tacoma International
SFO	San Francisco International
SJU	Luis Munoz Marin International
SNA	Orange County John Wayne

FY 2010 Cargo Strike Highlights

Entity Type	Inspections	Inspections with Findings	Findings	EIRs	Compliance Rate
IAC	1842	(b)(3):49 U.S.C. § 114(r)			
Air Carrier	621				
CCSF	161				

EIR = Enforcement Investigative Report

G. International Inbound

TSA's proposed strategy to enable industry to achieve the 100-percent screening mandate for inbound passenger air cargo includes two key components: increasing screening requirements in TSA's SSP to 100 percent and National Cargo Security Program (NCSP) recognition. Through NCSP recognition, TSA allows U.S. air carriers and foreign air carriers to follow the security programs of countries that TSA determines to be commensurate with TSA requirements.

In addition, as a result of the recently disrupted plot to transport explosive devices on inbound air cargo on October 29, 2010, TSA has taken immediate steps to further secure the air cargo supply chain with air carriers, foreign air carriers, and all-cargo carriers. TSA will continue to evaluate these near- and longer-term measures and will implement them through the appropriate processes.

SSP Updates

As of May 1, 2010, 100-percent screening was required for all loose cargo shipments placed on narrow- and wide-body aircraft and a minimum of 15 percent screening was required, per flight, for all other cargo that is shrink-wrapped and banded to skids. TSA plans to release additional program changes by the end of 2010 for industry comment. These revisions will outline TSA's proposal to increase screening requirements for inbound air cargo to 100 percent.

NCSP Recognition

NCSP recognition allows passenger air carriers to adhere to the air cargo security programs of specific countries that TSA determines to be commensurate with TSA requirements. Air carriers, by way of an amendment process to the carrier's SSP, may adhere to the recognized NCSP of a specific country instead of the carrier's SSP. Amendments to a carrier's program may be accepted for cargo that departs airports to the United States from the following countries: (b)(3):49 U.S.C. § 114(r) (b)(3):49 U.S.C. § 1 TSA has focused its efforts on reviewing, analyzing, and evaluating country programs and seeks to expedite the participation of other countries, especially those countries that have been identified with a high risk factor combined with a high volume of air cargo inbound to the United States. NCSP recognition involves a system-to-system approach to ensure that the combination of the components that constitute a country's NCSP provides a level of security that is commensurate with the components of the U.S. air cargo supply chain security system.

International Efforts

In addition to increasing screening through security programs and NCSP recognition, TSA continues to strengthen air cargo security standards through information sharing and direct engagement with international organizations and partner countries. TSA is currently engaged in multiple bilateral and multilateral initiatives and has made significant progress recently in its work with the European Commission to assess the comparability of air cargo security standards of European Union Member States. Engaging in such agreements and partnerships increases the cross-sharing of information regarding international air cargo security best practices. In addition, ongoing engagement in these types of activities will identify potential candidate countries for NCSP recognition.

In September 2010, the International Civil Aviation Organization (ICAO) adopted TSA's proposal to incorporate key air cargo supply chain security and threat detection concepts into the security Standards and Recommended Practices of Annex 17 to the Convention

on International Civil Aviation of 1944 (Chicago Convention). TSA worked closely with the International Air Transport Association (IATA) and foreign government partners on this effort to strengthen ICAO's standards by advocating the importance of detection methods in screening over security controls alone.

During the November 2010 ICAO Multilateral Meeting on Air Cargo Security in Montreal, Canada, representatives from industry and multiple contracting states discussed ways to strengthen air cargo security in the near-, intermediate-, and long-term future. Participants discussed potential further initiatives to enhance cargo security, including: developing a global definition of high-risk cargo; deploying joint teams of training, technical, and compliance personnel as a show of global alignment and standardization of security requirements; exploring the requirement of advance manifest information for cargo targeting; and establishing a standard cargo hub concept to target certain areas that would receive multilateral technical and training support to bring the level of security above the level of basic standards, providing an example for surrounding cargo facilities and regions.

IV. Screening Technologies

TSA continues to support the development of diverse screening methods, including approved technologies and the use of canines. Because no single technology is appropriate for every screening scenario, TSA has approved a suite of technologies and associated screening protocols from which screening entities may choose on the basis of their unique requirements and commodities.

A. Major Initiatives—Air Cargo Screening Technologies

To ensure that screening entities have guidance regarding appropriate and effective technologies available for purchase, TSA developed the TSA Air Cargo Screening Technology List (ACSTL) and published the first list in April 2008. The list includes equipment models that TSA evaluated for effectiveness in a cargo environment. The ACSTL has been periodically updated as new technology models or methods of screening have been approved and now includes both "Approved" technologies, which have met TSA standards and are eligible for use for 36 months while undergoing further testing, and "Qualified" technologies, which are able to be used for the life cycle of the equipment. The most recent version of the ACSTL is version 6.0, dated September 13, 2010.

TSA has authorized the use of the following technologies to screen air cargo. These technologies are currently being used by both industry and TSA to screen air cargo unless otherwise noted:

- ETD
- AT X-Ray (both Small and Medium Aperture)
- X-Ray (Large Aperture)
- Electronic Metal Detection (EMD)

TSA is also actively engaged in the following initiatives related to air cargo screening technology:

- Testing, evaluation, and qualification of existing technologies for use in air cargo to assist the fresh fruit industry and others in complying with new cargo screening requirements
- Deployment of skid-level and palletized screening technologies, including vapor and metal detection technologies, to meet the 100-percent screening mandate
- Continuous collaboration with the DHS Science and Technology Directorate on research and development of new screening technologies

Technologies that have been "approved" but not "qualified" are eligible for use for 36 months from the date they were added to the technology list. During this period, TSA will evaluate the operational efficacy of these technologies to accommodate the cargo screening volumes required to meet the 100-percent screening mandate of the 9/11 Act. TSA is also evaluating other technologies for air cargo screening, including metal detectors, vapor detection systems, and microwave technologies. Outcomes of DHS/TSA Transportation Security Laboratory testing, Office of Security Technology Operational Utility Evaluation field testing and evaluation, and the IAC CCSP may result in modifications or additions to this list.

Air cargo screening devices submitted for qualification must complete an eight-step qualification process. As depicted in the following chart, in this eight-step process, manufacturers submit relevant information on their proposed device in "white papers," so that TSA can perform an initial assessment of the device's screening merit. On "industry day," TSA provides a detailed briefing to manufacturers on the qualification criteria for the technology. After "industry day," manufacturers who wish to continue participation in the qualification testing will compile and submit a "qualification data packet" containing information specified by TSA. TSA then requires manufacturers to enter into a bailment agreement with TSA to establish their respective responsibilities and liabilities while equipment is in the custody of TSA. Next, TSA begins laboratory and field testing of the technology. In the final step, TSA convenes a Technical Review Panel that analyzes the test results and determines if the technology should be qualified.

B. Screening Technology Qualification Process

Step		Owner
1	Submit White Papers	Manufacturers
2	Assess White Papers	TSA
3	Conduct/Participate in Industry Day	TSA/Manufacturers
4	Submit Qualification Data Packets	Manufacturers
5	Assess Qualification Data Packets	TSA
6	Coordinate Logistics/Bailment Agreements	TSA/Manufacturers
7	Conduct Qualification Test	TSA
8	Assess Final Reports	TSA

Qualification Testing (step 7) includes formal laboratory and field tests based on air cargo screening qualification standards. Devices that successfully pass the qualification tests are placed on a Qualified Technologies List (QTL). Only technologies purchased or leased in accordance with this list may be used to meet the 100-percent screening mandate enacted by Congress in the 9/11 Act.

TSA issued screening protocols for using the technologies listed in Section 4A of this report, "Major Initiatives—Air Cargo Screening Technologies": ETD, AT X-Ray, X-Ray, and EMD. The protocols detail screening methodologies for each technology type and provide guidance on which technologies can be used for specific commodity classes.

C. Access Control Technology Pilot

The Air Cargo Vulnerability Assessments identified opportunities for improved access control at warehouse facilities. TSA is initiating a pilot to test and evaluate various access control measures in the operational environment. Like the IAC Screening Technology Pilot, this pilot will have immediate benefits of raising the level of security in the air cargo supply chain and longer-term benefits of forming policies for access control.

V. Outreach

A. Current and Past Outreach Progress

CCSP has extended partnerships with industry trade associations and Federal and local Chambers of Commerce nationwide to ensure awareness of the program among key industry segments. Through most of 2008 and early 2009, TSA's outreach efforts focused primarily on air carriers, airports, and IACs at the 18 high-cargo-volume airports. Through these regulated entities, TSA also conducted outreach to shippers. In 2010, TSA has further expanded its outreach efforts, focusing on shippers in key commodity segments and local trade associations through Webinars, targeted email campaigns, and industry forums and conferences.

TSA will continue to engage local trade groups and associations to obtain a level of industry involvement sufficient to continue to meet the domestic portion of the mandate beyond August 2010.

B. Planned Events and Activities

TSA's international outreach efforts have included the IATA and other industry associations such as the International Air Cargo Association, as well as numerous air carriers, both U.S.- and foreign-flag carriers. TSA has participated in meetings and conferences throughout the world directly engaging with those industry representatives and continues to engage with its government counterparts in countries around the world. This year TSA participated in the Asia Pacific Economic Cooperation Air Cargo Security Conference in Singapore as well as meetings with the European Commission, the Association of Asia Pacific Airlines conference in Kuala Lumpur, Malaysia, and the ICAO General Assembly. In November, Administrator Pistole participated in the IATA AVSEC World Conference in Frankfurt, Germany, and met with aviation security officials to sign an international security agreement with Germany. TSA will continue to focus on comprehensive outreach activities and engage all stakeholders as it moves forward with these efforts.

VI. Challenges for International Inbound

The challenges TSA faced in developing its domestic approach are also present for international inbound air cargo and are further compounded by the unique attributes of the international environment. An estimated 2.8 billion pounds of cargo placed on passenger aircraft arrives from 94 different countries yearly via a global air cargo supply chain with an unknown number of participants.[3] Those 94 countries have varying systems for air cargo security. As a result, innumerable unique air cargo security programs and regulatory requirements are implemented worldwide.

In addition, organizations such as ICAO and the European Commission have established international security standards to which all contracting states must adhere, leading to multiple standards and requirements for industry to follow depending on country of operation. Globally, screening technology is limited in availability and lacks standardized application. In addressing these challenges, TSA must continue to work with U.S. aircraft operators, foreign air carriers, and its international partners, at various stages and locations to standardize and improve the shipping process.

[3] 2009 Bureau of Transportation Statistics data.

VII. DHS Action Plan

TSA has ensured that industry met the August 2010 100-percent screening mandate for cargo transported on passenger aircraft. TSA is making significant progress toward successful implementation of its air cargo security initiatives and programs targeted toward meeting the 100-percent screening mandate for international inbound air cargo on passenger flights. In FY 2011, TSA will focus air cargo resources to ensure compliance domestically with the 100-percent screening requirement and work toward screening 100-percent international inbound air cargo on passenger aircraft by:

- Releasing security program changes outlining TSA's proposal to increase screening requirements for inbound air cargo to 100
- Identifying and evaluating technology equipment to screen specific commodities: Perishable, Chemicals, and Pharmaceuticals
- Implementing the third-party canine screening pilot
- Increasing cargo inspection resources to educate industry and enforce the 100-percent screening requirement
- Testing, evaluating, and qualifying existing technologies for use in complying with screening requirements for specific commodities
- Deploying skid-level and palletized screening technologies, such as vapor detection and metal detection, if approved
- Issuing the Air Cargo Screening Final Rule
- Conducting regular outreach to a multitude of stakeholders including, but not limited to, foreign governments and Civil Aviation Authorities, foreign and domestic carriers, industry associations, international organizations, and regional bodies to harmonize air cargo security standards and advance the "supply chain screening" approach toward 100-percent screening of international inbound cargo on passenger aircraft
- Assessing legacy NCSP and identify other programs for potential TSA-recognition

VIII. Appendix—LEO-led Canine Team Locations by Name

Airport Code	Airport Name	Airport Code	Airport Name
ABQ	Albuquerque International Sunport	LGB	Long Beach Airport
ALB	Albany International Airport	LIH	Lihue Airport
ANC	Anchorage International	LIT	Little Rock National
ATL	Hartsfield Atlanta International	MCI	Kansas City International
AUS	Austin Bergstrom International	MCO	Orlando International
BDL	Bradley International	MDW	Chicago Midway
BGR	Bangor International	MEM	Memphis International
BHM	Birmingham International	MHT	Manchester
BNA	Nashville International	MIA	Miami International
BOI	Boise Air Terminal/Gowen Field	MKE	General Mitchell International
BOS	Logan International	MSP	Minneapolis-St. Paul International
BUF	Greater Buffalo	MSY	New Orleans International
BUR	Bob Hope Airport	MWAA	Metropolitan Washington Airport Authority
BWI	Baltimore-Washington International	OAK	Metropolitan Oakland International
CLE	Cleveland Hopkins International	OGG	Kahului Airport
CLT	Charlotte/Douglas International	OMA	Omaha Eppley Airfield
CMH	Port Columbus International	ONT	Ontario International
COS	Colorado Springs Municipal	ORD	Chicago-O'Hare International
CPD	Chicago Police Department	ORF	Norfolk International
CVG	Cincinnati/Northern Kentucky International	PAPD	Port Authority Police Department
DAL	Dallas Love Field	PBI	West Palm Beach International
DAY	James M. Cox Dayton International	PDX	Portland International
DCA	Washington Reagan National	PHL	Philadelphia International
DEN	Denver International	PHX	Phoenix Sky Harbor International
DFW	Dallas/Fort Worth International	PIT	Pittsburgh International
DTW	Detroit Metro Wayne County	PVD	T F Green State
ELP	El Paso International	RNO	Reno/Tahoe International
EWR	Newark International	RSW	Southwest Florida International
FLL	Ft. Lauderdale-Hollywood International	SAN	San Diego Intl-Lindbergh Field
GSN	Saipan International	SAT	San Antonio International

Airport Code	Airport Name	Airport Code	Airport Name
GSO	Piedmont Triad International	SDF	Louisville International
GUM	Antonio B. Won Pat International	SEA	Seattle-Tacoma International
HNL	Honolulu International	SFO	San Francisco International
HOU	Hobby Airport	SJC	San Jose International
IAD	Washington-Dulles International	SJU	Luis Munoz Marin International
IAH	Houston Intercontinental	SLC	Salt Lake City International
IND	Indianapolis International	SMF	Sacramento Metropolitan
ITO	Hilo International Airport	SNA	Orange County John Wayne
JAX	Jacksonville International	STL	Lambert St. Louis International
JFK	John F. Kennedy International	STT	Cyril E. King International
KOA	Kona International Airport	TPA	Tampa International
LAS	McCarran International	TUL	Tulsa International
LAX	Los Angeles International	TUS	Tucson International

~~SENSITIVE SECURITY INFORMATION~~

Passenger Rail Security Risk Assessment and National Strategy

October 15, 2010

Homeland Security

Transportation Security Administration

Message from the Secretary

October 15, 2010

I am pleased to present the following report, "Passenger Rail Security Risk Assessment and National Strategy," which was prepared by the Transportation Security Administration (TSA). This report is in response to a requirement in the Implementing Recommendations of the 9/11 Commission Act of 2007 (9/11 Act), Public Law 110-53, Section 1511. It provides the results of a comprehensive assessment of the risk of a terrorist attack involving the Nation's passenger rail transportation system. This report also satisfies requirements in S. Rpt. 111-222.

The Department of Homeland Security (DHS) completed this risk assessment in conjunction with TSA, other DHS entities, Federal partners, and industry members. TSA consulted with a wide range of passenger rail transportation system stakeholders in preparing this report. Building on these efforts and recent risk assessments, DHS/TSA has developed a comprehensive passenger rail security strategy for passenger rail and mass transit. This strategy is informed by practical operational experience of transit agencies, frontline personnel and security experts, numerous risk analyses, threat assessments, vulnerability assessments, and TSA covert testing. The overarching goal of this strategy is to increase visible deterrence through canine, passenger screening, and anti-terrorism teams and infrastructure resilience at high-risk targets.

This document is marked as Sensitive Security Information and special handling procedures apply to its storage and transmission.

Pursuant to statutory requirements, this report is being provided to the following Members of Congress:

The Honorable Bennie G. Thompson
Chairman, House Committee on Homeland Security

The Honorable Peter T. King
Ranking Member, House Committee on Homeland Security

The Honorable Joseph I. Lieberman
Chairman, Senate Committee on Homeland Security and Governmental Affairs

The Honorable Susan M. Collins
Ranking Member, Senate Committee on Homeland Security and Governmental Affairs

The Honorable David Obey
Chairman, House Committee on Appropriations

The Honorable Jerry Lewis
Ranking Member, House Committee on Appropriations

The Honorable Daniel K. Inouye
Chairman, Senate Committee on Appropriations

The Honorable Thad Cochran
Ranking Member, Senate Committee on Appropriations

The Honorable Bart Gordon
Chairman, House Committee on Science and Technology

The Honorable Ralph M. Hall
Ranking Member, House Committee on Science and Technology

The Honorable John D. Rockefeller
Chairman, Senate Committee on Commerce, Science, and Transportation

The Honorable Kay Bailey Hutchison
Ranking Member, Senate Committee on Commerce, Science, and Transportation

If you have any questions, please do not hesitate to contact me at (b)(6) or the TSA Office of Legislative Affairs at (571) 227-2717.

Yours very truly,

Janet Napolitano

Executive Summary

Our Nation's passenger rail systems and assets are vital to the overall functioning of our Nation's transportation sector, economy, and society. Protecting these systems from deliberate attack or disruption remains a top Administration priority and is a shared responsibility among transit agencies, law enforcement, the private sector, and the traveling public.

While Federal, state, and local transit agencies and industry partners have taken substantial action to enhance protection of passenger rail—through grants, training, operational deterrence, exercises, public awareness, and critical infrastructure protection activities—there is still much work to be done. Inherent vulnerabilities in the system's open architecture, combined with large numbers of riders and aging critical infrastructure, continue to make passenger rail a terrorist target.

To obtain a more complete picture of system-wide risk and inform a national strategy for the protection of passenger rail, TSA has conducted a series of risk assessments on U.S. passenger rail systems and assets, including subway rail, commuter rail, and inter-city passenger rail.

These assessments included national, system, asset, and regional level assessments, tailored to the needs and characteristics of each type of system. Building on these risk assessments, TSA also completed the Transportation Security Sector Risk Assessment (TSSRA) to serve as a comprehensive, cross-modal view and comparative analysis of terrorist risk involving transportation.

To determine risk at the system level, TSA, in coordination with transit agencies, also completed assessments in 93 of the 100 largest transit systems and 18 assessments on smaller agencies, under the Baseline Assessment for Security Enhancement (BASE) program, which measures effectiveness of security programs.

Improvised Explosive Device (IED) attacks on passenger rail systems in urban areas remain the greatest risk to the passenger rail. Chemical, biological, and radiological (CBR) attacks against large intermodal stations also have the potential to create a large number of casualties because of the volume of people who use those stations. Additional risks include sabotage against passenger rail tracks and assaults against passenger rail trains and stations.

In addition, TSA has examined risk on a regional basis for mass transit. (b)(3):49 U.S.C. § 114(r)

(b)(3):49 U.S.C. § 114(r)

To protect against likely attack scenarios, DHS has committed approximately $1.6 billion since Fiscal Year (FY) 2006 to local systems to train front line workers; build canine teams, anti-terrorism teams, and passenger screening teams; support local exercises; promote public security awareness; harden critical transit infrastructure; and fund intelligent information-gathering

systems. Amtrak also has received $97 million in security grants from DHS since FY 2006 for similar activities, focused on the Northeast Corridor.

Building on these efforts and recent risk assessments, TSA has developed a comprehensive passenger rail security strategy for passenger rail and mass transit. This strategy is informed by practical operational experience of transit agencies, frontline personnel, and security experts, numerous risk analyses, threat assessments, vulnerability assessments, and TSA covert testing. The overarching goal of this strategy is deterrence through canine, passenger screening, and anti-terrorism teams and infrastructure resilience at high-risk targets through asset hardening, access control improvements, and installation of intrusion detection capabilities.

A trained workforce and an aware public remain critical to the success of this strategy. Moving forward, TSA will execute the Visible Deterrence and Resilient Infrastructure Strategy through the following 5-part plan:

1. **Federal Funding for Anti-Terrorism Teams**: Focus Federal security grants on canine, passenger screening, and anti-terrorism teams and on vulnerable critical infrastructure (stations, tunnels, and bridges) that, if successfully attacked, would have significant consequence.

2. **Intelligence**: Strengthen efforts to share intelligence with local operators and support intelligence information gathering, such as greater use of the Suspicious Activity Reporting System (SARS) by state, local, tribal, and territorial law enforcement agencies.

3. **Augment Local Resources**: Augment local anti-terrorism efforts with TSA resources, such as Transportation Security Officers (TSO) working in conjunction with Amtrak police and local law enforcement to conduct random passenger screening and deploy TSA special operation teams to support thousands of annual Visible Intermodal Prevention and Response (VIPR) operations each year.

4. **National Security Standards**: Collaborate with frontline stakeholders and industry partners to utilize best practices in developing national security standards.

5. **Public Awareness**: Emphasize the importance of public awareness, such as the recently announced DHS "*If You See Something, Say Something*" campaign, adapted as a best practice from the successful New York Metropolitan Transportation Authority (MTA) public awareness program.

Passenger Rail Security Risk Assessment and National Strategy

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Legislative Language

Section 1511 of the *Implementing Recommendations of the 9/11 Commission Act of 2007* (9/11 Act), Public Law 110-53, Title XV - Surface Transportation Security, Subtitle B—Railroad Security, includes the following requirements:

(a) RISK ASSESSMENT.—The Secretary shall establish a Federal task force, including the Transportation Security Administration and other agencies within the Department, the Department of Transportation, and other appropriate Federal agencies, to complete, within 6 months of the date of enactment of this Act, a nationwide risk assessment of a terrorist attack on railroad carriers. The assessment shall include—

(1) a methodology for conducting the risk assessment, including timelines, that addresses how the Department will work with the entities described in subsection (c) and make use of existing Federal expertise within the Department, the Department of Transportation, and other appropriate agencies;
(2) identification and evaluation of critical assets and infrastructure, including tunnels used by railroad carriers in high threat urban areas;
(3) identification of risks to those assets and infrastructure;
(4) identification of risks that are specific to the transportation of hazardous materials via railroad;
(5) identification of risks to passenger and cargo security, transportation infrastructure protection systems, operations, communications systems, and any other area identified by the assessment;
(6) an assessment of employee training and emergency response planning;
(7) an assessment of public and private operational recovery plans, taking into account the plans for the maritime sector required under section 70103 of title 46, United States Code, to expedite, to the maximum extent practicable, the return of an adversely affected railroad transportation system or facility to its normal performance level after a major terrorist attack or other security event on that system or facility; and
(8) an account of actions taken or planned by both public and private entities to address identified railroad security issues and an assessment of the effective integration of such actions.

(b) NATIONAL STRATEGY.—

(1) REQUIREMENT.—Not later than 9 months after the date of enactment of this Act and based upon the assessment conducted under subsection (a), the Secretary, consistent with and as required by section 114(t) of title 49, United States Code, shall develop and implement the modal plan for railroad transportation, entitled the ''National Strategy for Railroad Transportation Security.''

The Secretary of Homeland Security delegated responsibility to TSA to complete a nationwide risk assessment examining the potential threat, vulnerabilities, and consequences of a terrorist attack on the Nation's passenger rail system, as required by the 9/11 Act.

DHS also delegated responsibility to TSA to develop a national strategy for passenger rail transportation. The strategy included in this report begins on page 9 and is based on the passenger rail security risk assessment.

I. Passenger Rail Security Risk Assessment and National Strategy

A. Assessments

TSA has conducted several assessments on passenger rail systems and critical assets at the national and regional levels.

National Assessments
TSA developed the TSSRA, a report designed to provide both cross-modal and individual modal analyses of risk. This report relied on the input of industry, multiple Federal agencies, and several departments.

Key findings include the following:

(b)(3):49 U.S.C. § 114(r)

(b)(3):49 U.S.C. § 114(r)

Within mass transit/passenger rail[1], key findings included the following:

(b)(3):49 U.S.C. § 114(r)

System Assessments

TSA, in coordination with transit agencies, has completed BASE assessments in 51 of the largest 55 systems by daily ridership (those that average over 60,000 riders a day); 42 assessments among agencies ranked 55-100 in size; and 18 assessments on smaller agencies. Of BASE's 17 focus areas, TSA views 6 action items as critical. (b)(3):49 U.S.C. § 114(r)

(b)(3):49 U.S.C. § 114(r)

Of the BASE assessments conducted on the largest systems, results show these systems displayed weaknesses in only 2 of the 17 action items (and none of the 6 critical action items).

(b)(3):49 U.S.C. § 114(r)

The results of these BASE assessments continue to drive both the development of focused security programs/initiatives and influence resource allocations under the Transit Security Grant

[1] For more information on current threats to the mass transit/passenger rail mode, please refer to TSA's Mass Transit Threat Assessment, DHS Office of Intelligence and Analysis's "Threat Assessment: Mass Transit and Passenger Railroads," and TSA's assessment on Train Station Attack Methods.

Program (TSGP), particularly when there is a match among grant funding priorities, system proposals, and gaps identified through BASE assessments.

Critical Asset Assessments

Mass transit and passenger rail assets differ significantly based on size, location, ownership, capacity measures, and redundancy of operations. These differences make it challenging to prioritize assets and infrastructure. Ranking mass transit and passenger rail assets and infrastructure criticality allows the Federal Government to better target Federal infrastructure grants to optimize the resiliency of the Nation's surface transportation assets and infrastructure. TSA worked with industry and Government partners to identify a list of the most critical assets to mass transit and passenger rail. Factors that went into this determination included the type of asset, ridership, the iconic value of the asset, and whether the asset was a transfer station, as well as others. See, as an example, Appendix F as types of assets that meet this threshold.

DHS's Science and Technology Directorate contracted with Lawrence Livermore National Laboratories to perform a blast assessment on all 30 underwater tunnels in FY 2006-2008, and there was a separate blast assessment on the 2 bridges.

Results of these structural blast assessments helped tunnel owners/operators identify their security needs. (b)(3):49 U.S.C. § 114(r)

(b)(3):49 U.S.C. § 114(r)

Regional Assessments

TSA has also examined risk on a regional basis for mass transit. (b)(3):49 U.S.C. § 114(r)

(b)(3):49 U.S.C. § 114(r)

The results from this regional analysis support the grant allocation among Tier I transit regions. These grants support activities such as front-line employee training, canine teams, anti-terrorism teams, mobile screening packages, intelligence support, exercises; public awareness campaigns, and tunnel hardening.

[2] Unlinked Passenger Trips counts each car boarding as a separate trip regardless of the number of transfers.

B. Risk Mitigation Actions

Grants

The Federal Government cooperates directly with state and local transportation service providers to mitigate risk for passenger rail systems across the Nation. As shown in the table below, for the period 2006-2010, approximately $1.6 billion has been awarded through TSGP. This funding has enhanced security in multiple areas including training, operational deterrence, exercises, public awareness, and critical infrastructure protection activities. TSGP attempts to increase in-house anti-terrorism capabilities by funding a substantial portion of personnel, equipment, and training costs of dedicated anti-terrorism operational teams; procurement and deployment of explosives detection canine teams; targeted anti-terrorism and immediate response training and exercises for law enforcement and front-line employees; and multi-media security awareness campaigns to encourage and maintain public vigilance.

2006 – 2010

	Regions									
Type of Activity	New York	Los Angeles	Chicago	Wash., DC	San Francisco	Boston	Philadelphia	Other Areas	Amtrak	Total
Training	$47.2M	$1.3M	$3.8M	$10.8M	$2.9M	$12.3M	$9.7M	$24.4M	$5.6M	**$118.0M**
Operational Deterrence:	***$115.2M***	***$3.0M***	***$29.4M***	***$15.9M***	***$6.6M***	***$11.8M***	***$16.5M***	***$14.7M***	***$22.6M***	***$235.7M***
- K-9 Teams	$11.0M	$0.0	$3.8M	$1.1M	$1.9M	$1.3M	$0.5M	$2.0M	$8.1M	**$29.7M**
- Anti-Terrorism Teams	$39.7M	$1.9M	$9.8M	$12.3M	$4.3M	$3.4M	$10.4M	$12.1M	$0.0M	**$93.9M**
- Mobile Screening	$10.5M	$1.1M	$3.5M	$1.8M	$0.0	$6.6M	$0.9M	$0.0	$9.2 M	**$33.6M**
- Intel Units/Other OPack	$54.0M	$0.0	$12.3M	$0.7M	$0.4M	$0.6M	$4.7M	$0.6M	$5.3M	**$78.6M**
Exercises	$0.2M	$0.7M	$0.3M	$0.3M	$0.6M	$3.3M	$0.5M	$3.9M	$3.5M	**$13.3M**
Public Awareness	$26.4M	$3.8M	$0.6M	$0.7M	$0.2M	$2.7M	$3.3M	$3.6M	$4.5M	**$45.8M**
Critical Infrastructure Protection	$455.2M	$14.1M	$46.0M	$65.4M	$54.9M	$33.4M	$27.9M	$64.6M	$51.1M	**$812.6M**
Sub-Total	***$644.2M***	***$22.8M***	***$80.1M***	***$93.1M***	***$65.2M***	***$63.5M***	***$57.9M***	***$111.1M***	***$87.8M***	***$1,225.7M***
Other Activities	$42.4M	$31.1M	$34.3M	$62.5M	$46.3M	$43.5M	$23.8M	$49.2M	$9.4M	**$342.3M**
TOTAL	**$686.6M**	**$53.9M**	**$114.4M**	**$155.6M**	**$111.5M**	**$107.0M**	**$81.7M**	**$160.3M**	**$97.0M**	**$1,568.0M**

*Discrepancies in totals can be attributed to rounding.

Specific Risk Mitigation Activities in each of these areas is discussed below:

Training

TSA has worked with the transit operators to provide funding for security training for over 90 percent of the frontline employees in the highest risk transit systems regions.

Visible Deterrence

The Federal Government continues to augment local anti-terrorism efforts with TSA resources, such as TSOs participating on mobile screening teams with Amtrak police to screen passengers, and in New York subways with the New York Police Department (NYPD). TSA special operation teams (known as VIPR teams) continue to work with local partners to support several thousand annual operations. TSA inspectors work with local operators to assess security status

and help those stakeholders raise their security posture. Specific areas of cooperation include TSA grant funding and support for the following:

- 77 Anti-Terrorism Teams (304 officers) including 128 officers for NYPD dedicated to anti-terrorism transit activities funded by the American Recovery and Reinvestment Act (ARRA).
- 17 Mobile Screening Teams (70 officers; New York, Boston, Chicago, Philadelphia, Atlanta and Los Angeles) in which TSA TSOs partner with local law enforcement officers to screen transit passengers at unpredictable locations
- 61 canine teams (b)(3):49 U.S.C. § 114(r)
- 14 intelligence analysts
- 3 Bomh Response Liaison Officers
- Directed patrols and surge activities which allow for additional transit law enforcement/security personnel to patrol transit stations and infrastructure on an overtime basis
- 100 Amtrak/TSA mobile screening operations in the Northeast Corridor
- 1,000+ transit VIPR deployments each year
- 10 TSA teams in New York MTA subway daily working with NYPD screening teams
- Three TSA teams in Amtrak Northeast Corridor stations with Amtrak screening teams

Exercises: The Federal Government continues to work with higher risk regions to conduct and coordinate multimodal exercises. Since 2008, TSA has coordinated eight interagency exercises. Since 2006, TSA has funded over 100 table top/full scale exercises via grants.

Public Awareness: TSA continues to emphasize the importance of public awareness to preventing and disrupting threats. On July 1, 2010, Secretary Napolitano kicked off the DHS "If You See Something, Say Something" campaign in New York with TSA Administrator John Pistole. Through FY 2010, TSA has awarded more than $40 million for public awareness programs, and they will continue to be an important part of TSA's transit security strategy.

Critical Infrastructure Protection: The Federal Government relies on a multi-faceted approach to protect assets and systems whose targeting by terrorists threatens the most extensive potential consequences. The TSGP's top project priorities are hardening and protective actions for underwater tunnels, bridges, and multi-user, high-volume stations.

TSA has undertaken specific hardening efforts to protect the Nation's critical infrastructure.

(b)(3):49 U.S.C. § 114(r)

Approximately $155.2 million have been allocated for tunnel hardening from TSGP since FY 2006. In addition, two bridges have been identified as nationally critical and both have been assessed for blast vulnerability. Finally, 30 transit stations have been identified as nationally critical and are undergoing a blast assessment. Approximately $168.5 million in grants have been devoted to stations for pbysical security improvements since FY 2006.

Amtrak Security Efforts: The Federal Government is working with Amtrak on a number of activities to strengthen passenger rail security, including the following:

- Grants: Amtrak has received $97 million in security grants from DHS since FY 2006.
  - $22 million for operational deterrence efforts, including canine teams and mobile passenger screening teams
  - $4.5 million awarded for public awareness programs
  - $3 million for exercises

- Operational Deterrence: 100 Amtrak/TSA mobile screening operations

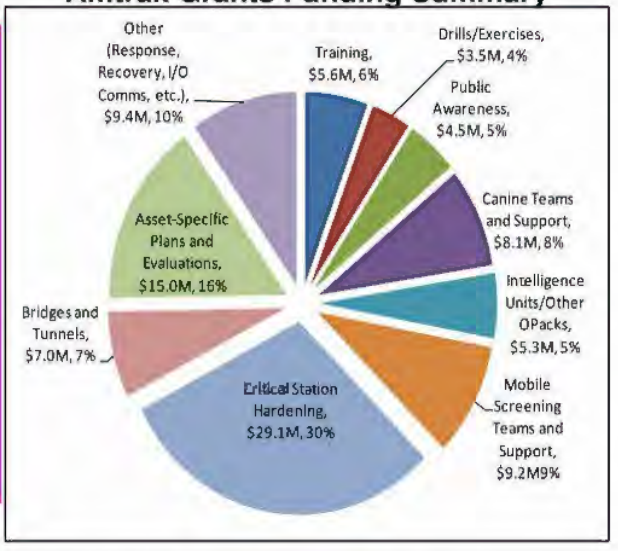
- Critical Infrastructure Protection: TSA has worked with Amtrak to provide hardening to high-risk infrastructure targets (b)(3):49 U.S.C. § 114(r)

(b)(3):49 U.S.C. § 114(r)

(b)(3):49 U.S.C. § 114(r) Hardening activities include the Comprehensive Station Action Plan and Toolkit that outlines steps to mitigate vulnerabilities and protection/response activities

(b)(3):49 U.S.C. § 114(r)

Amtrak Grants Funding Summary



- Amtrak received $450 million under the ARRA from Department of Transportation (DOT) for capital asset hardening

C. Passenger Rail Security Strategy

Passenger rail and mass transit systems are open access, high volume systems. The New York subway alone carries 2.5 times the passengers that pass through commercial airports daily and has as many stations as there are federalized airports. Passenger rail stations are not designed for airport and checkpoint-style screening without significantly impairing the ability of the free flow of passengers. While airport checkpoints incur daily passenger volume peaks, passenger rail systems tend to be driven by rush hour demands. Though Amtrak ridership is less tied to rush hours, track locations are often not known until the trains arrive, challenging the ability to set up queues for screening passengers.

The passenger rail security strategy is informed by these circumstances in addition to practical operational experience with passenger rail operators, numerous risk analyses, threat assessments, vulnerability assessments, and TSA covert operational testing. The strategy is designed to reduce the identified risks by increasing visible deterrence and infrastructure resilience, supported by a trained workforce and an aware public. The strategy also recognizes the unique roles of the Federal Government and local operators to provide system security.

Visible Deterrence

The greatest risk to passenger rail systems is from an IED attack (e.g., suicide vest, back pack, and other carry-on). London, Mumbai, Madrid, and Moscow were all attacked with IEDs. Because passenger rail systems are designed to be open-access, they present unique security challenges. Screening every person is not a practical option. Visible, unpredictable deterrence is a tool to detect or disrupt surveillance, reconnaissance, or an actual attack attempt.

At the request of several large metropolitan passenger rail security providers, TSA conducted numerous covert tests of passenger rail systems with teams composed of agents with special operations backgrounds. (b)(3):49 U.S.C. § 114(r)

(b)(3):49 U.S.C. § 114(r)

A 2007 RAND Corporation study (excerpt at Appendix H) also supports visible deterrence as a cost-effective security measure. Both passenger screening and canine teams were part of their "inexpensive solutions with highest cost-effectiveness payoffs" category of Security Improvement Recommendations. Security training and public awareness were also included in that category.

Infrastructure Resilience

The vast majority of passenger rail infrastructure is aging. Most of the critical passenger rail stations, tunnels, and bridges were constructed in the early 20th century, some in the 19th century. The infrastructure is old and vulnerable from a structural standpoint. It is also complex, with many changes made to the original design, further complicating engineering support. By their nature, improving infrastructure resilience is a challenging, complicated process. Because nearly all facilities are over 50 years old, historical impact reviews must also be conducted before any remediation can take place. Further, many of these critical assets are high-volume locations, many of which have been the targets of terrorist plots. These locations are not only well known as targets, but have very high passenger loads and considerable operational consequences for the systems that rely on them if they were to be impacted by a terrorist attack.

While considerable funding has been spent on studying, and progress made in hardening, these assets, considerable work remains to improve their resilience to terrorist attack.

Focus on Visible Deterrence and Infrastructure Resiliency

TSA has been developing measures of security capability for 11 categories of security for all modes of transportation, including passenger rail:

- Vulnerability Assessments
- Security Plans including business operations continuity
- Vetting workers, travelers, and shippers
- Training workers in security awareness and response
- Preparedness and response drills
- Public awareness and preparedness
- Risk mitigating operating practices
- Unpredictable operational deterrence
- Screening workers, travelers, and cargo
- Technology applications
- Secure critical infrastructure

Each of these security categories has a specific metric unique to the mode of transportation. Mass transit, which includes passenger rail and intra-city transit buses, has 11 distinct measures corresponding to each category:

- Vulnerability assessments (over 60K ridership)
- Security plan assessments (over 60K ridership)
- Employee background investigation (over 100K ridership)
- Security awareness training for workers (over 100K ridership)
- Tabletop and functional drills (over 100K ridership)
- Public awareness and preparedness (over 100K ridership)
- Canine teams percentage target (over 100 dedicated police)
- Anti-terrorism team hours percentage target (over 100 dedicated police)

- Passenger screening team hours percentage target (over 100 dedicated police)
- Technology application protection (intrusion detection and access control – based on level of criticality)
- Infrastructure hardening protection (based on level of criticality)

(b)(3):49 U.S.C. § 114(r)

5-Part Plan

The following five part plan for Passenger Rail security is currently under consideration:

1. Focus Federal anti-terrorism funding
2. Strengthen intelligence efforts
3. Augment local resources
4. Set national security standards
5. Raise public awareness

1. Federal anti-terrorism funding: The TSGP, administered by DHS, can be a powerful tool to drive a risk-based, intelligence driven strategy. Federal transit security grant funding has averaged approximately $400 million per year with Amtrak receiving approximately $25 million per year over the past several years. Amtrak also received $450 million in ARRA funding via DOT for capital asset security improvements.

TSGP currently has limits on the amount that may be spent on all types of visible deterrence. In FY 2011, there is a 10 percent cap on the total amount of security grant funding that can be used for visible deterrence such as canine, passenger screening, and anti-terrorism teams. Visible deterrence, training, public awareness, drills, and exercises are considered "operational funds" and must also be accounted for within the 10 percent cap, limiting the availability of these visible packages to a limited number of transit systems.

(b)(3):49 U.S.C. § 114(r)

TSA is exploring the following options for the TSGP in FY 2011:

Visible deterrence

- Potentially adjusting the operational cap
- Eligibility for operational packages to all agencies with dedicated transit security focus greater than 100 officers

Infrastructure Resilience

- (b)(3):49 U.S.C. § 114(r)
- Fund infrastructure resilience designs
- Upon approval of a design and plan, evaluate construction costs and related funding avenues
- (b)(3):49 U.S.C. § 114(r)

2. Intelligence: The Federal Government continues to strengthen efforts to share intelligence with local transit operators. The DHS Suspicious Activity Reporting (SAR) System will serve as a backbone for information-sharing by and with stakeholders. By providing timely analytical information and support to owners and operators, coupled with TSA intelligence sharing with stakeholders, the Public Transportation Information Sharing Analysis Center and local Joint Terrorist Task Forces (JTTF), the SAR System will help facilitate the exchange of up-to-date intelligence and trends.

DHS is working with the Department of Justice (DOJ), National Counterterrorism Center (NCTC), DOT and other Federal entities to publish and provide to law enforcement entities, state and major urban area fusion centers, and transportation entities intelligence materials that clearly define threats facing our Nation's passenger rail infrastructure as well as tactics, techniques, and plans relating to past attacks. This information is used to train front-line personnel so that they are better able to recognize behaviors and indicators associated with those threats and distinguish between potential threat-related criminal activity and legal behaviors. Aggressive vetting and inter-linked information systems allow relevant reports to be rapidly shared with DHS, TSA, and local JTTFs so that potential threats can be uncovered, investigated and mitigated. On July 1, 2010, Amtrak – along with DOJ and DHS – announced the implementation of a system-wide SAR program that will eventually be expanded to include all regional passenger rail and mass transit systems nationally.

Systems that warehouse large amounts of camera images and are designed for anomaly detection are valuable anti-terrorism tools. Therefore, TSA will support the development of these intelligent information gathering systems – such as those being developed in New York and Chicago.

3. Augment local resources: TSA will continue support of local anti-terrorism efforts by deploying TSOs and special operation teams (known as VIPR teams) to work with law

enforcement, such as Amtrak police and NYPD, on passenger screening and other visible deterrent operations.

4. National Security Standards: TSA works closely with local security experts from all the major passenger rail operations throughout the United States and internationally to shape risk-based security performance standards. TSA has 11 metrics for passenger transit and individual measures of security capability for each major operator. TSA will use those measures to drive continuous security improvement by constantly evaluating agency security posture and focusing attention and resources on those areas which are most in need of improvement.

5. Public Awareness: An aware and engaged public is critical to any security plan. DHS has adopted the "*If You See Something, Say Something*" program as a best practice from the successful New York MTA public awareness program. The DHS public awareness initiative, in conjunction with local awareness efforts, will encourage the public to report suspicious activity as was recently demonstrated in the Times Square terrorist attack attempt.

II. Appendix A: Passenger Rail Attack Scenarios

The table below is an extract from TSA's TSSRA report. While the full TSSRA report addressed all modes of transportation, these scenarios are specific to passenger rail. In order of appearance, the five columns in the table are as follows:

- The scenario's rank among all Passenger Rail (PR) scenarios
- The scenario's rank among all Mass Transit (MT) scenarios
- The scenario's rank among all TSSRA scenarios
- A description of the scenario
- The scenario's relative risk value (in non-dimensional units)

(b)(3):49 U.S.C. § 114(r)

III. Appendix B: SAIC Risk Assessment Summary

Science Applications International Corporation (SAIC) conducted three Needs Assessments on Amtrak operations during the period March 2006-March 2009. These assessments concentrated their activities in the following areas of the Amtrak system:

- Urban Areas – Needs Assessments Process conducted on 22 assets/locations throughout the South and Midwest
- U.S. West Coast – Needs Assessments Process conducted on 39 assets/locations on the West Coast.
- U.S. Northeast Coast (b)(3):49 U.S.C. § 114(r) – Needs Assessments conducted on 35 assets/locations (b)(3):49 U.S.C. § 114(r)

Needs Assessment Process used was designed to accomplish the following goals:

- Identify critical missions, assets, facilities, nodes, and chokepoints for Amtrak's West Coast operations;
- Identify and prioritize specific weapon of mass destruction (WMD) terrorism risks related to Amtrak's operations and assets; and
- Assess the vulnerabilities and risks of specific assets and evaluate and prioritize the needs for security countermeasures and response and recovery capability enhancements.

Needs Assessment Process Steps:

- Step 1 (Risk Assessment) – Conduct a comprehensive assessment of WMD risk to Amtrak assets, including a Criticality Assessment, Threat Assessment, Vulnerability Assessment, Response & Recovery Capabilities Assessment, Impact Assessment, and Risk Assessment;
- Step 2 (Needs Assessment) – Conduct an assessment of needs in the areas of security countermeasures and response and recovery capabilities; and,
- Step 3 (Cost Benefit Analysis) – Conduct an analysis to compare the life-cycle cost of identified solutions with their risk reduction potential

Transit Risk Assessment Module (TRAM) was ultimately used in all three Needs Assessment reports. It should be noted that the TRAM was developed shortly after the first assessment, conducted on the Urban Areas, was completed. The data from the Urban Areas assessment conducted in 2006 was used in the 2009 update.

Findings:

- **Urban Areas –**
  - Date of Assessment: March 26, 2006 - Updated with TRAM application March 26, 2009

(b)(3):49 U.S.C. § 114(r)

(b)(3):49 U.S.C. § 114(r)

West Coast

- Date of Assessment Report: January 10, 2008

(b)(3):49 U.S.C. § 114(r)

- **Northeast Corridor/Chicago**
  - Date of Assessment – May 4, 2006

(b)(3):49 U.S.C. § 114(r)

Common Security Countermeasures Recommended

All assets have specific security countermeasures and response and recovery capabilities identified that have the potential to reduce risk. Countermeasures that can be applied to particular assets and have been identified in the following categories as having high return on investment (ROI). High ROI countermeasures are as follows:

(b)(3):49 U.S.C. § 114(r)

(b)(3):49 U.S.C. § 114(r)

Common Response Capabilities Recommended

(b)(3):49 U.S.C. § 114(r)

IV. Appendix C: TSA Mass Transit Threat Assessment

TRANSPORTATION SECURITY ADMINISTRATION
OFFICE OF INTELLIGENCE

(U) Mass Transit
Threat Assessment
26 March 2010

MTA-82065-2010-03-26

(U) Executive Summary

(U) Scope

(U//FOUO) This TSA Office of Intelligence (TSA-OI) annual mass transit threat assessment provides an overview of the threat to the U.S. mass transit system and presents conclusions regarding likely perpetrators, as well as their targets and weapons.

(U//FOUO) Much of the information and conclusions presented below have been derived from information found in the National Counterterrorism Center's Worldwide Incidents Tracking System (WITS).[1] TSA-OI reviewed mass transit-related incidents in WITS between the period of 1 September 2008 to 31 August 2009. Other information found in this assessment is derived from intelligence and open source reporting with a cutoff date of 31 August 2009. Analytical confidence levels in the key judgments—mainly based on the strength of the sources used—are in the "high" and "moderate" range. No single source dominated or had a particularly catalyzing effect on the analysis.

(U//FOUO) The U.S. mass transit system incorporates the passenger rail, heavy rail, light rail, and transit bus sectors. Approximately 6,000 mass transit agencies/authorities in the United States transport approximately 14 million people daily.

(U) Executive Summary (cont'd)

(U) Key Findings

(U//FOUO) TSA-OI has no credible threat information regarding current planning for an attack on U.S. mass transit systems, but in the last two years, terrorists have demonstrated an interest in targeting these systems. TSA-OI assesses with high confidence that the current terrorist threat to U.S. mass transit systems is medium.

- (U//FOUO) Al-Qa'ida has demonstrated a continuing desire to carry out violent attacks on mass transportation systems in the Homeland.
- (U//FOUO) TSA-OI's review of WITS data shows that secular, political, and anarchist groups conduct the majority of attacks against mass transit systems. Because of their stated goal to inflict mass casualty attacks on the Homeland and their demonstrated intent to do so, TSA-OI assesses that al-Qai'da poses the greatest terrorist threat to U.S. mass transits systems.
- (U//FOUO) TSA-OI's review of WITS data shows that terrorists prefer to attack passenger rail systems over buses.
- (U//FOUO) Improvised incendiary devices (IIDs) and improvised explosive devices (IEDs) are the most common weapons used against mass transit systems. A review of WITS data indicates that IEDs were used in many attacks against passenger trains. IIDs were the preferred tactic of terrorists against buses, closely followed by armed attacks and IEDs. TSA-OI assesses that IEDs, IIDs, and armed attacks are the most likely weapons to be used to conduct a future terrorist attack against the U.S. mass transit system.

TSA-OI Mass Transit Modal Threat Assessment

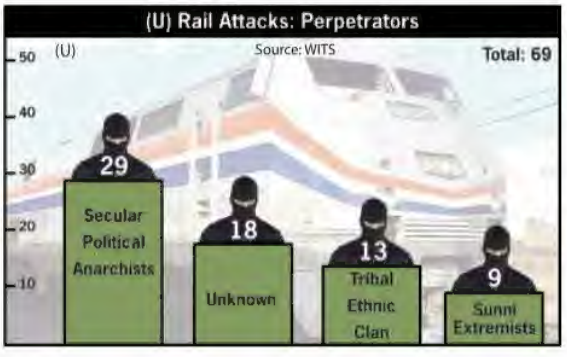
(U) Threat Overview

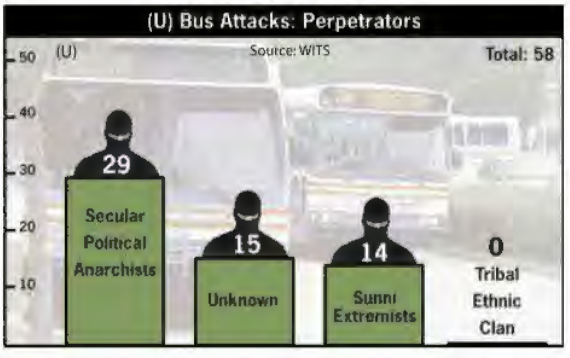
(U//FOUO) The Transportation Security Administration's Office of Intelligence (TSA-OI) has no current or credible information regarding threats against the U.S. mass transit system.

(U) Actors

(U//FOUO) While terrorists with secular, political, or anarchist leanings historically pose the greatest threat to mass transit, based off incident data, TSA-OI suggests the greatest threat to the Homeland mass transit sector would hail from terrorists motivated by extremist religious viewpoints. TSA-OI assesses that al-Qa'ida and its affiliates currently represent the greatest threat to U.S. mass transit systems.

- (U//FOUO) According to information found in the National Counterterrorism Center's Worldwide Incidents Tracking System (WITS) database, there were 127 attacks on mass transit systems—passenger trains and buses—worldwide from 1 September 2008 to 31 August 2009. Of these attacks, WITS attributed almost half—60 attacks—to terrorists with secular, political, or anarchist motives.[1] Terrorists with religious motives—usually Sunni extremists—accounted for about 15 percent of the attacks. Perpetrators with unknown motives or those motivated by tribal, ethnic, or clan conflicts were responsible for about 30 percent of the attacks.





[1] For the purpose of this report, TSA-OI defines actors according to NCTC's categorization of perpetrators/types. Traditionally, NCTC only attributed attacks to perpetrators when a claim of responsibility was made or if reporting indicated a belief that a particular perpetrator was responsible. Only those groups that have already been designated a foreign terrorist organization by the State Department; that have themselves claimed responsibility for terrorist actions or status as a terrorist group; or that have been repeatedly and reliably suspected of involvement in specific terrorist activities are included in WITS.

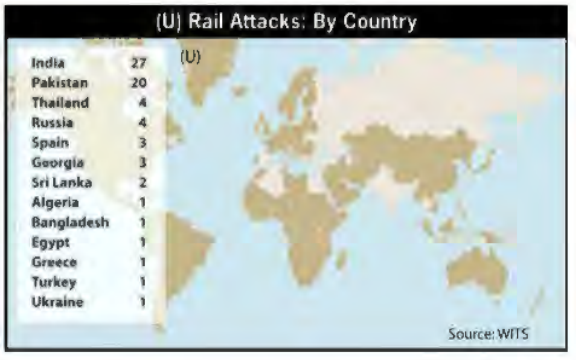
(U//FOUO) No U.S. domestic groups with secular, political, or anarchist motivations have expressed the intent to carry out an attack on U.S. mass transit. Sunni extremists—either through consulting with or at the direction of al-Qa'ida—have shown the intent and demonstrated capability to attack or engage in planning attacks against U.S. mass transit systems. While outside the period used to collect the data used in this assessment, two recent incidents emphasize al-Qa'ida's continued intent to strike at U.S. mass transit systems.

- (U) 22 February 2010: U.S. Person (USPER) Najibullah Zazi, a legal permanent resident of the United States from Afghanistan, admitted he brought triacetone triperoxide (TATP) explosives to New York on 10 September 2009, as part of a plan to attack the New York subway system. During his statement to the court, Zazi admitted he and others flew to Peshawar, Pakistan, where they were recruited by al-Qa'ida shortly after arriving. During their training, al-Qa'ida leaders asked Zazi and others to return to the United States and conduct suicide operations. They agreed.[2]

- (U) January 2009: USPER Bryant Neal Vinas admitted during his statement to the court that in the fall of 2007 he left his home in Long Island, New York, to travel to Pakistan. When he arrived in Pakistan, he made contact with and was accepted into al-Qa'ida. Vinas also stated during his court address that he consulted with a senior al-Qa'ida leader and provided detailed information about the operation of the Long Island Railroad system. Vinas said that the purpose of providing this information was to help plan an attack on that system.[3]

(U) Targets

(U//FOUO) Most terrorist attacks against mass transit systems were directed at passenger trains, but terrorists frequently attacked buses[i] as well. Attacks on trains took place most often in India, while attacks on buses tended to take place in the Philippines or Pakistan. Secular, political, or anarchists groups conducted most of the attacks on these transportation systems. No terrorists have attacked rail or buses in the United States.



(U//FOUO) These conclusions are based on and supported by statistical data. For instance, according to WITS data, of the 69 attacks on passenger trains, 50 occurred in South Asia. Only 9 attacks on passenger trains were conducted by Sunni extremists; secular, political, or anarchists groups conducted most of the attacks on trains. No terrorists attacked passenger rail in the Homeland.

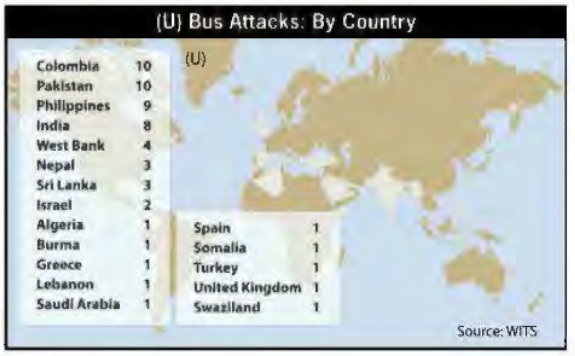
- (U) In a series of attacks that took place in two of India's eastern provinces on 28 February 2009 and 1 March 2009, terrorists attacked three railway stations, substantially damaging two of them and destroying a third. The terrorists, who probably were members of the Communist Party of India-Maoists, also destroyed two sections of railroad track, an action that stranded several trains. Although the terrorists used landmines and bombs in their attack, and were described by the press as "heavily armed," no injuries were reported.[4]

(U//FOUO) WITS data also provides insights into which terrorist groups attack bus systems. Here again, secular, political, and anarchists groups were responsible for half of all terrorist attacks on buses. Eleven attacks occurred in East Asia/Pacific, and eight attacks in each of the following areas: Central America, South America, and the Middle East. South Asia, however, with 24 attacks, experienced more bus attacks than any other area.[5] Like passenger rail, no terrorist attacks on buses occurred in the Homeland.

i (U) For operational reasons, TSA distinguishes between fixed route transit buses and over-the-road and school buses—categories into which WITS data on buses do not precisely fit. TSA-OI's annual highway (over-the-road and school buses) and mass transit (fixed route transit buses) assessments tried to maintain this classification system, but lacking specific data, were not always successful. Therefore, the aggregate number of attacks in both assessments might exceed those listed in WITS.

- (U) 16 March 2009: In Pakistan, a suicide bomber struck at one of Rawalpindi's busiest bus stands. A probable Islamic extremist killed himself and 13 others in the attack, which also damaged a nearby building that houses first responders. No group claimed responsibility, and the local police chief claimed that the aim of the bombing was "to create panic among the general public." Twenty-eight people were wounded in the attack.[6]

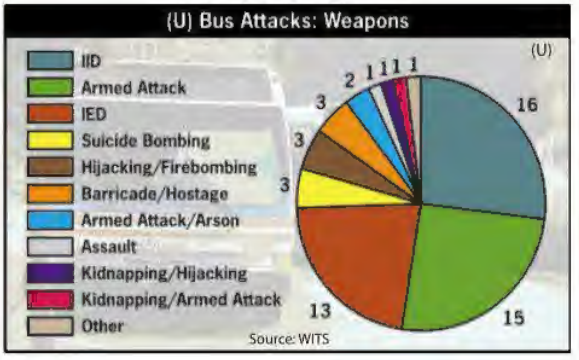
- (U) 3 February 2009: In Kirkuk, Iraq, police arrested a suicide bomber in a bus station before he could detonate his suicide vest.[7]

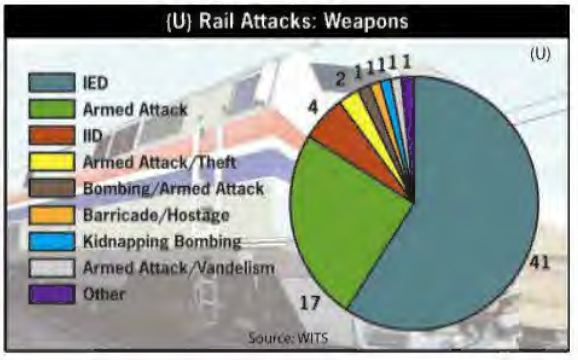


(U) Tactics

(U//FOUO) IEDs and IIDs were terrorists' preferred weapons in attacks on mass transit systems. Extremists also perpetrated attacks using multiple weapons and methods—for example, barricades, hijacking, and hostage taking. TSA-OI assesses that IEDs would very likely play a role in an attack against mass transit systems in the Homeland.

(U//FOUO) IEDs and IIDs were terrorists' weapons of choice when they attacked buses and trains. IEDs and IIDs were used in 30 of 58 terrorist attacks on buses. IEDs were used in 41 of 69 attacks on trains.[8] Incidents during this period show that these tactics were used by many different groups worldwide.





- (U) 11 June 2009: Three bombs exploded within an hour of each other in Zugdidi, Georgia. The first bomb exploded in the freight car of a train stopped at the city's rail station; 15 minutes later, a bomb, which had been placed in a trash can at the station, exploded. A third bomb exploded near the city's police station 30 minutes later. Zugdidi is located on the border of Abkhazia and Georgia, and the bombing was likely the work of separatists.[9]

- (U) 11 June 2009: A bomb exploded on a train traveling from Karachi to Quetta, Pakistan. The bomb killed 1 person and injured 35. Baluchistan separatists may have been responsible for the bombing.[10]

- (U) 27 June 2009: Terrorists, who were likely associated with the Conspiracy of Fire Cells Athens-Thessaloniki, threw fire bombs at a city bus depot in Athens.[11]

(U) Cyber Attacks

(U//FOUO) There were no terrorist cyber attacks against the U.S. mass transit sector in 2009. Hackers, motivated by nationalism but unassociated with any terrorist group, have demonstrated an interest in attacking mass transit Web sites overseas. In May 2009, a group of Moroccan hackers managed to access and deface the Israeli Dan Bus Company Web site by inserting anti-Israeli slogans throughout the site.[12] Similar instances of defaced rail systems Web sites took place in India in 2008 and 2009.[13,14] Although common, the tactic of defacing a Web site poses little threat to the operations of mass transit systems.

(U) Conclusion

(U//FOUO) TSA-OI has no current or credible information regarding threats against the U.S. mass transit system; however, the recent discovery of several terrorist plots in the Homeland shows that al-Qa'ida remains intent on targeting these systems. TSA-OI assesses with high confidence that the threat to mass transit is medium.

(U//FOUO) Terrorists continue to view attacks on transit buses and passenger trains as an effective and viable tactic, and TSA-OI assesses that successful attacks against mass transportation modes overseas could serve as models for similar attacks in the Homeland. TSA-OI judges with high confidence that al-Qa'ida and its affiliates are the greatest threat to U.S mass transit systems, and specifically to rail. TSA-OI also assesses with high confidence that IEDs would be the most likely weapons used by al-Qa'ida in an attack and could likely be incorporated into other types of attacks, such as armed assaults, on the U.S. mass transit system.

(U//FOUO) Prepared by TSA's Office of Intelligence, Transportation Analysis Branch. For dissemination questions, contact TSA-OI_Production@tsa.dhs.gov.

(U) Endnotes

1 (U) WITS is an unclassified, publicly accessible, Web-based system. Users can browse records and derive statistics for enumerating acts of terrorism around the world. Records are based on published methodology and the statutory definition of terrorism: "premeditated, politically motivated violence perpetrated against non-combatants by subnational groups or clandestine agents" (United States Code 22 USC § 2656f(d)(2)).
2 (U) DOJ Press Release; 22 Feb 10; "(U) Najibullah Zazi Pleads Guilty to Conspiracy to Use Explosives Against Persons or Property in U.S., Conspiracy to Murder Abroad and Providing Material Support to Al-Qaeda;" (U)
3 (U) Sealed Pages of Transcript of Proceedings; 28 January 2009; case 1:08-cr-00823-NGG; filed 7/23/09
4 (U) SATP; accessed March 2010; "(U) Terrorist Attacks on Railways in India;" (U)
5 (U) Worldwide Incidents Tracking System; http://wits.nctc.gov; 31 July 2009; (U)
6 (U) The Daily Times; 17 March 2009; "(U) 14 Killed, 17 Injured in Rawalpundi Suicide Blast;" (U)
7 (U) McClatchy Newspapers; 3 February 2009; "(U) Roundup of Daily Violence in Iraq-3 February 2009;" (U)
8 (U) Worldwide Incidents Tracking System; http://wits.nctc.gov; 31 July 2009; (U)
9 (U) AFP; 11 June 2009; "(U) Blasts rock flashpoint Georgia Town;" (U)
10 (U) ANI; 11 June 2009; "(U) 1 killed, 35 injured in train bomb blast in Baluchistan;" (U)
11 (U) OSC; EUP20090707431003; 07 Jul 09; "(U) Greece: June 2009 Instability Incidents;" (U)
12 (U) www.IsraelNN.com; "(U) Moroccan Hackers Hit Dan Bus Site;" 8 May 2009; (U)
13 (U) www.thehindu.com; "(U) 2 Rly. Websites defaced;" 29 January 2009; (U)
14 (U) www.expressindia.com; "(U) Hackers deface Eastern Rail website;" 25 December 2008; (U)

V. Appendix D: I&A Mass Transit Threat Assessment

Assessment

(U) Threat Assessment: Mass Transit and Passenger Railroads

IA-0348-10

Office of Intelligence and Analysis

ASSESSMENT

(U) Threat Assessment: Mass Transit and Passenger Railroads

29 June 2010

(U) Prepared by the DHS/I&A Homeland Counterterrorism Division, Terrorist Targets and Tactics Branch. Coordinated with DHS/TSA-Office of Intelligence, DHS/Office of Infrastructure Protection, DHS/Office of Bombing Prevention, and Amtrak. The Interagency Threat Assessment and Coordination Group has reviewed this product from the perspective of our nonfederal partners.

(U) Scope

(U//FOUO) This product is intended to support the activities of the Department and to assist federal, state, and local government counterterrorism, law enforcement officials, and the private sector in effectively deterring, preventing, preempting, or responding to terrorist attacks against mass transit and passenger railroad assets in the United States.

(U) Enduring Targets

(U//FOUO) The United States faces a continuing threat from violent extremists intent on attacking the Homeland. Public statements by al-Qa'ida leaders and spokesmen regularly threaten attacks on U.S. soil. Spokespersons such as Anwar al-Aulaqi[USPER] and Adam Gadhan[USPER] have called for Westerners to conduct simple, small-scale attacks against familiar targets that do not require extensive support and training. Preparations and planning for such attacks are often difficult to detect.

(U//FOUO) The DHS/Office of Intelligence and Analysis (I&A) and DHS/Transportation Security Administration Office of Intelligence (TSA-OI) have no credible or specific information indicating current terrorist plots to conduct attacks against U.S. mass transit and passenger railroad systems. These systems, however, are among the critical infrastructure components that violent extremists consistently identify as desirable targets. High-ridership passenger railroads and mass transit systems serve many major U.S. cities, some with stations near notable government or private sector buildings, or other iconic facilities.

(U//FOUO) Attack Methods

(U//FOUO) Several characteristics of mass transit and passenger railroad systems make them vulnerable to various types of terrorist attacks. They are difficult to secure because they are accessible to the public, operate on published and predictable schedules, and have multiple access points.

(U//FOUO) **IEDs Targeted at Mass Transit:** Overseas, a favored tactic of terrorists to attack mass transit and passenger railroad systems has been placement of multiple improvised explosive devices (IEDs) in baggage, aboard train cars, and in stations. Terrorists have constructed these devices using commercial, military, and homemade explosives.

— (U) On 29 March 2010, two female suicide bombers wearing IED belts concealed under their clothes boarded separate trains in the Moscow Metro system during morning rush hour and detonated their devices as the trains entered stations. At least 38 people were killed and more than 100 were injured in the attacks.

— (U) In February 2010, Najibullah Zazi[USPER] pled guilty to conspiracy to use explosives against persons or property in the U.S. and providing material support to al-Qa'ida. In April 2010, Zarein Ahmedzay[USPER], one of Zazi's two co-conspirators, pled guilty to terrorism violations stemming from, among other activities, his role in an al-Qa'ida plot to conduct coordinated suicide bombings on New York's subway system in September 2009.

— (U//FOUO) In January 2009, Bryant Neal Vinas[USPER] pled guilty to providing material support to a foreign terrorist organization. Vinas provided specific information and suggestions for attacking the New York transit system, specifically the Long Island Railroad[USPER], to al-Qa'ida.

(U//FOUO) IEDs Targeted at Passenger Trains. A common tactic terrorists overseas have used against passenger railroads has been to place IEDs in the trackbed —underneath the tracks—to derail a train. There have been no recent terrorist attacks or plots in the United States using similar tactics, but it is a viable attack method that can disable or derail trains, kill or injure many passengers, and disrupt railroad operations.

— (U//FOUO) On 27 November 2009, the Russian high-speed luxury passenger train Nevsky Express was derailed when an IED placed in the railbed exploded, killing at least 27 and injuring approximately 100 passengers. The attack occurred in a rural area between Moscow and St. Petersburg.

(U) Common Features in Past Attacks

(U//FOUO) Terrorist attack tactics used against mass transit and passenger railroad systems abroad provide insights that can assist law enforcement officers and private sector owners and operators in securing these critical infrastructure assets. The table below highlights common features—including tactics, timing, and device concealment methods—of terrorist attacks against mass transit or passenger railroad systems between March 2004 and March 2010.

(U) Table 1: Terrorist attacks against mass transit and passenger railroads.

	Madrid, Spain 11 March 2004	London, UK 7 July 2005	Mumbai, India 11 July 2006	India-Pakistan "Peace Train" 20 February 2007	Russia Nevsky Express 27 November 2009	Moscow Metro 29 March 2010
Timing	Morning rush hour	Morning rush hour	Evening rush hour	Midnight, after all passengers were aboard	2130, after all passengers were aboard	Morning rush hour
Tactic	Coordinated, 13 drop-and-leave devices	Coordinated, 4 suicide devices	Coordinated, 8 drop-and-leave devices	Coordinated, 6 drop-and-leave devices	Single placed explosive	Coordinated; 2 suicide devices
Method of Concealment	Identical duffel bags	Backpacks	Devices hidden in pressure cookers inside satchels	Large, hard-sided suitcases	Buried beneath the tracks under ballast	Under clothes
Placement of Devices	On the floor, on seats, inside passenger cars	Carried inside and placed between legs on the floor of passenger cars and on bus	On overhead luggage racks inside passenger cars	By the doors inside passenger cars	Underneath tracks	Inside passenger cars; detonated as trains entered stations
Explosive Type	Dynamite (Goma-2) 22 lbs; included shrapnel	Peroxide-based homemade explosives 9.9 lbs; included shrapnel	RDX (high explosive) 2.5 lbs; included shrapnel	Incendiary device, potassium nitrate with sulfur to spread flammable liquids—kerosene and petrol—with a timing device	Unknown explosive material equivalent to 15 lbs of TNT	RDX (high explosive) 8.8 lbs and 4.4 lbs; included shrapnel
Commonly available components?	No, stolen	Yes, but difficult-to-create explosive materials	Yes, in India	Yes	Unknown	No

(U) Suspicious Activity Indicators

(U//FOUO) The following indicators often can reflect legitimate recreational or commercial activities or criminal activity not related to terrorism. The presence of multiple indicators—especially combined with other information—however, may suggest a terrorist threat:

— (U//FOUO) Demonstrating unusual or prolonged interest in security measures or personnel, entry points and access controls, or perimeter barriers such as fences or walls.

— (U//FOUO) Persistently questioning security or facility personnel through personal contact, telephone, mail, or e-mail.

— (U//FOUO) Behaving unusually; for example, staring or quickly looking away from personnel or vehicles entering or leaving facilities or parking areas, or displaying anxious behaviors such as retracing steps.

— (U//FOUO) Observing security reaction drills or procedures.

— (U//FOUO) Monitoring police radio frequencies and recording emergency response times.

— (U//FOUO) Parking vehicles in restricted zones or purposely placing objects in sensitive or vulnerable areas to observe security responses.

— (U//FOUO) Mapping out routes or timing traffic lights and traffic flow.

— (U//FOUO) Passing anonymous telephone or e-mail threats to facilities in conjunction with suspected surveillance incidents; these can be designed to test and observe threat reaction procedures.

— (U//FOUO) Apparent use of a hidden camera, such as panning a briefcase over a particular area or constantly adjusting a hat or sunglasses.

— (U//FOUO) Discreetly using still cameras, video recorders, binoculars, or note taking and sketching at non-tourist-type locations.

— (U//FOUO) Using multiple sets of clothing or identification.

— (U//FOUO) Attempting to improperly acquire explosives, weapons, ammunition, dangerous chemicals, or explosive precursors.

— (U//FOUO) Attempting—suspiciously or improperly—to acquire official vehicles, uniforms, badges, access cards, or identification credentials for key facilities.

(U) Protective Measures

(U//FOUO) DHS/I&A and TSA recommend and support a robust program of protective measures for the mass transit sector. The TSA security recommendations below stress vigilance, integration, and unpredictability. They are intended to extend the frequency and duration of terrorists' preoperational research, surveillance, reconnaissance, and other preparations; to create opportunities for them to make noticeable mistakes; and to detect their activities and disrupt their plans.

— (U//FOUO) **Vigilance:** Active awareness and participation by all mass transit and passenger rail employees, law enforcement officers, vendors who work in and near transit and rail systems, and the traveling public, are critical to detecting potential terrorist activity. Public awareness campaigns are a key component. Suspicious activities should be reported to authorities.

— (U//FOUO) **Integration:** Integration of private sector security and employees, law enforcement, and first responders is integral to success. Lacking the advantage of air travel's secure areas and 100 percent screening requirements, a key objective in mass transit and passenger rail security is to implement security activities designed to disrupt and deter.

— (U//FOUO) **Unpredictability:** Successful terrorists have used surveillance and familiarization with targets to discern patterns in security activities and procedures. Mass transit and passenger rail agencies should strive for unpredictability in their security procedures and operations to thwart both preoperational activities and actual attacks.

(U) Suggested Security Measures

— (U//FOUO) Consider establishing surveillance at key entrances and areas of high consequence or high pedestrian traffic. Deploy plain-clothes law enforcement or security officials to perform surveillance in terminals, stations, rail cars, rail yards, and other locations.

— (U//FOUO) Increase visibility of law enforcement vehicles and uniformed security personnel.

— (U//FOUO) Increase frequency of inspections of passenger rail cars, terminals, stations, and rail yards for suspicious or unattended items.

— (U//FOUO) Coordinate necessary security efforts with federal, state, local, and tribal law enforcement agencies.

— (U//FOUO) Direct all employees, contractors, and vendors, as appropriate, to be alert and to report immediately to the operations center or to local law enforcement (per the respective emergency notification procedures) any situation that appears to constitute a threat or suspicious activity.

— (U//FOUO) Increase checks of designated unmanned and remote sites to frequent intervals looking for signs of unauthorized entry, suspicious packages, or unusual activities.

— (U//FOUO) Increase random, less predictable patterns when conducting security inspections, patrols, and surveillance.

— (U//FOUO) Maximize canine patrols.

(U) For additional information, see TSA-OI, "(U) Transportation Threat Assessment: Train Station Attack Methods," 16 June 2010.

(U) Reporting Notice:

(U) DHS and the FBI encourage recipients of this document to report information concerning suspicious or criminal activity to the nearest state and local fusion center and to the local FBI Joint Terrorism Task Force. The nearest state and local fusion centers contact information can be found online at http://www.dhs.gov/files/resources/editorial_0306.shtm. The FBI regional phone numbers can be found online at http://www.fbi.gov/contact/fo/fo.htm and the DHS National Operations Center (NOC) can be reached by telephone at (202) 282-9685 or by e-mail at NOC.Fusion@dhs.gov. For information affecting the private sector and critical infrastructure, contact the National Infrastructure Coordinating Center (NICC), a sub-element of the NOC. The NICC can be reached by telephone at (202) 282-9201 or by e-mail at NICC@dhs.gov. When available, each report submitted should include the date, time, location, type of activity, number of people and type of equipment used for the activity, the name of the submitting company or organization, and a designated point of contact.

(U) DHS/I&A would like to invite you to participate in a brief customer feedback survey regarding this product. Your feedback is extremely important to our efforts to improve the quality and impact of our products on your mission. Please click below to access the form, then follow a few simple steps to complete and submit your response. Thank you.

Survey

(U) Tracked by: HSEC-02-03000-ST-2009, HSEC-02-03004-ST-2009, HSEC-03-00000-ST-2009

Office of Intelligence and Analysis

I&A Customer Survey

Product Title:

Product Classification: Select One Type of Partner: Select One

1. How did you use this product in support of your mission?

- ☐ Integrated into one of our finished information or intelligence products
- ☐ Shared contents with federal or DHS component partners
  - If so, which partners
- ☐ Shared contents with state and local partners
  - If so, which partners
- ☐ Shared contents with private sector partners
  - If so, which partners
- ☐ Other (please specify)

2. Please rank this product's relevance to your mission.

Critical: ○ Very important: ○ Somewhat important: ○ Not important: ○ N/A: ○

Comment:

3. How could our product or service be improved to increase its value to your mission?

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(a) Timeliness of Product or Support	○	○	○	○	⊙
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(c) Responsiveness to Your Questions	○	○	○	○	⊙

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Your Name/Position:

Your contact # or email:

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DHS Form 6001 (3/10)

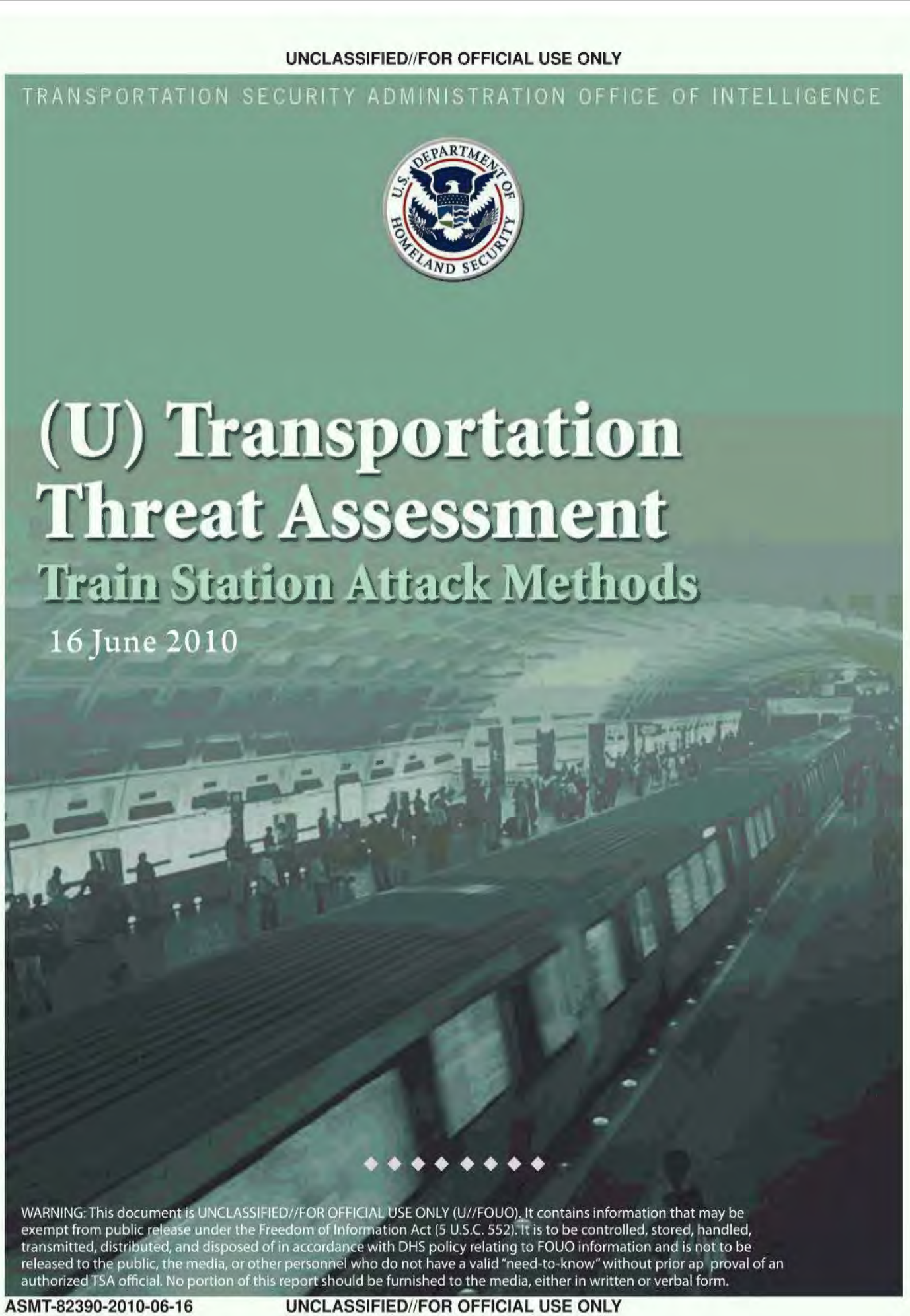
VI. Appendix E: TSA Assessment: Train Station Attack Methods

TRANSPORTATION SECURITY ADMINISTRATION OFFICE OF INTELLIGENCE

(U) Transportation Threat Assessment

Train Station Attack Methods

16 June 2010



(U) Scope Note

(U//FOUO) This Transportation Security Administration Office of Intelligence (TSA-OI) assessment is intended to provide an in-depth profile of the terrorist tactics, techniques, and procedures (TTPs) used to attack train stations. This assessment examines reporting that details attacks at train stations worldwide from 2004 to 2009, and is the second in a series of products focusing on TTPs used to attack mass transit systems. This assessment was produced to help security managers evaluate the effectiveness of and vulnerabilities in passenger railroad security programs, plans, and activities.

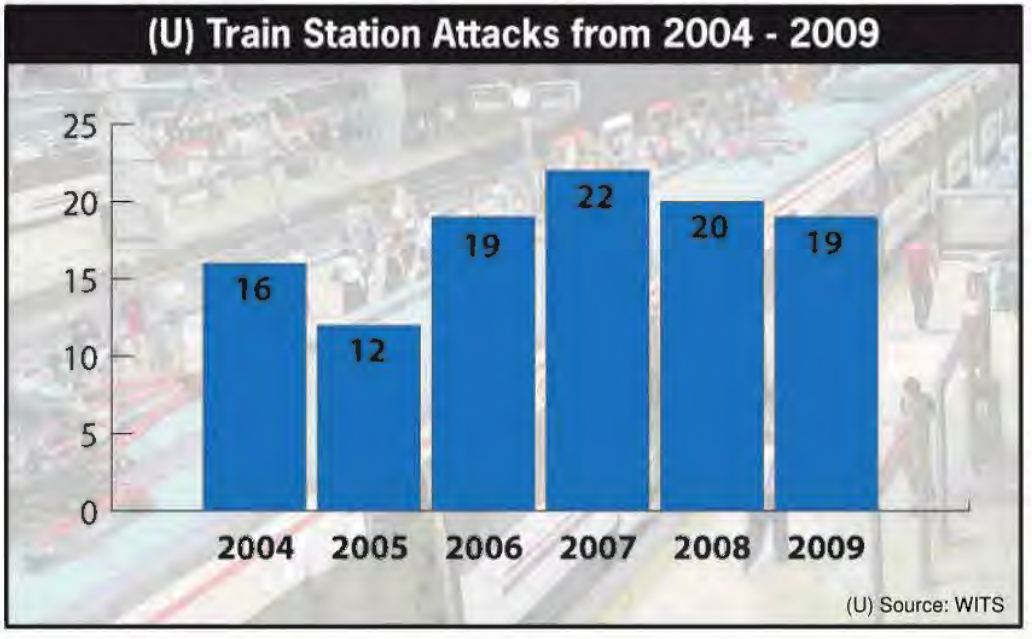
Key Findings

- (U//FOUO) Train stations will likely continue to be targets for terrorist groups due to their openness, ease of access, confined spaces, and mass gatherings of people.
- (U//FOUO) The number of attacks against train stations worldwide has remained steady since 2006.
- (U//FOUO) Terrorist groups worldwide have demonstrated the ability to use a variety of weapons against train stations; however, improvised explosive devices are the most common weapon used.
- (U//FOUO) Violent Islamic extremist groups have conducted the most lethal attacks against train stations.
- (U//FOUO) While an attack on a train station can occur at any time, TSA-OI's data review shows the evening rush hour was the most consistent time for an attack.

(U) TSA-OI Train Station Attack Methods Assessment

(U) Overview

(U//FOUO) According to the Worldwide Incident Tracking System (WITS) and open source data, terrorists conducted at least 108 attacks at train stations worldwide from 2004 through 2009, killing approximately 424 people and injuring 1,602 people.



(U//FOUO) From 2004 through 2009, 52 percent of the attacks against train stations involved improvised explosive devices (IEDs).[1]

(U) Motives

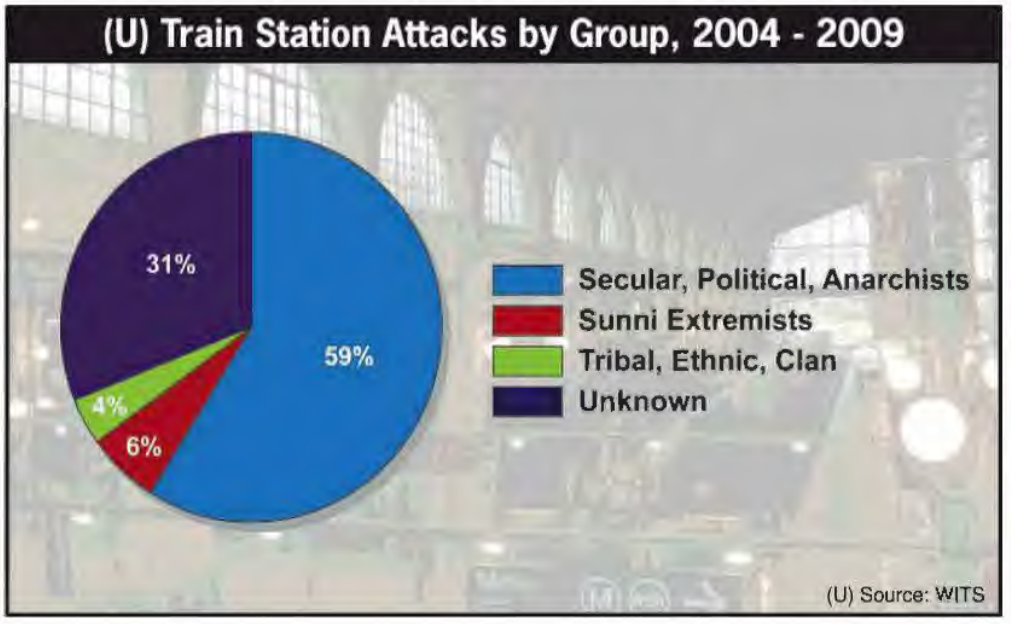
(U//FOUO) The Transportation Security Administration's Office of Intelligence (TSA-OI) analyzed terrorist groups most actively involved in train station attacks overseas to determine their motivation for attacks. The most common group motivations included:

- (U//FOUO) Secular, Political, and Anarchist Groups: Attack train stations to support their separatist, insurgent, or political struggle. Their attacks are generally in response to government policies or during periods leading up to government elections or national celebrations.[2,3]
- (U//FOUO) Sunni Extremist Groups: Attack train stations to create mass casualties, generate fear, garner media attention, and create a negative economic impact on the host government.[4]
- (U//FOUO) Tribal, Ethnic, and Clan Groups: Attack train stations to support their separatist or insurgent struggles against rival clans or host governments. These groups often promote the attitude that a particular group is superior because of ethnic or racial characteristics.[5,6]

(U) Actors

(U//FOUO) Sunni extremists conducted the most lethal attacks against train stations during the 2004-2009 period. They were responsible for 6 percent of all claimed attacks against train stations, and nearly 75 percent of all deaths and injuries. TSA-OI assesses that these groups prefer to conduct attacks that will achieve the goal of generating maximum civilian deaths and injuries.[7]

(U//FOUO) According to the data reviewed, the most active Sunni groups include the India-based Laskhar-e-Tayyiba (LT), Jemiyah Islamiya (JI), and Indian Mujahadeen (IM). TSA-OI assesses none of these groups are present in the United States; however, their methodologies could be used by affiliates or individuals aligned with these groups, who are motivated to attack the Homeland.[8]



- (U//FOUO) November 2008: Two members of LT attacked the Chhatrapati Shivaji train station in Mumbai, India, as part of a coordinated attack on the city. The attackers used automatic weapons, killing 58 people and wounding 95.[9]

- (U//FOUO) July 2006: Seven IEDs were detonated over a period of 11 minutes in a coordinated attack by LT against passenger trains in Mumbai, India. The IEDs—placed inside pressure cookers hidden inside satchels in overhead compartments—were detonated as the trains left various stations during the evening rush hour. The attack killed 209 and injured 809.[10]

(U//FOUO) Secular, political, and anarchist groups such as the Communist Party of India-Maoist (CPI-Maoist) and the Basque Fatherland and Liberty (ETA), operating in Spain, were responsible for 59 percent of all claimed attacks against train stations; however, only 20 percent of these attacks resulted in death and injury. TSA-OI assesses that most groups in this category prefer to conduct attacks designed to keep casualties to a minimum.[11]

- (U//FOUO) April 2009: A suspected member of the CPI-Maoist detonated IEDs at a train station in Jharkhand, India, damaging the station and the tracks.[12]

- (U//FOUO) June 2007: Members of the CPI-Maoist conducted an armed attack against a train station in Bihar, India, killing two people and injuring seven.[13]

- (U//FOUO) March 2006: Members of the CPI-Maoist kidnapped five people and detonated a bomb at a train station in Chhattisgarh, India. The victims were released after the explosion. The detonation caused damage to a train and the station.[14]

- (U//FOUO) May 2005: The ETA detonated an improvised incendiary device (IID) in a train station in Pais, Spain, damaging the lobby area.[15]

- (U//FOUO) January 2004: Members of the Peoples War Group (PWG) detonated an IED inside a train station in Jharkhand, India, which completely destroyed the station.[16]

(U//FOUO) According to the data reviewed, the most active tribal, ethnic, or clan groups include Dima Halim Daogah (DHD-J) and the Karbi Longri North Cachar Liberation Front (KLNLF) located in India. These groups have carried out a small number of attacks. Unlike secular, political, and anarchist groups, each attack by these groups resulted in deaths and injuries.[17]

- (U//FOUO) December 2008: The KLNLF detonated an IED inside a passenger rail car at a train station in Assam, India. The attack killed 3 people and injured 35.[18]

- (U//FOUO) May 2008: Members of the DHD-J conducted an armed attack against a train station in Assam, India, killing three people.[19]

- (U//FOUO) July 2006: Members of the DHD-J threw a grenade at a train station in Assam, India, killing three and injuring four people.[20]

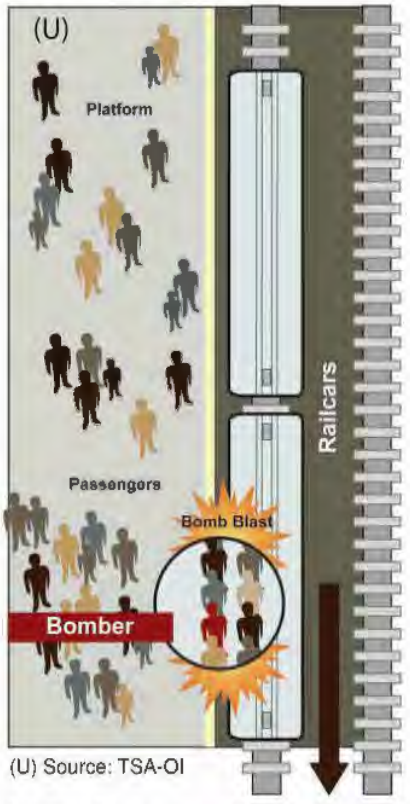
(U) Train Station Attack Patterns

(U//FOUO) Geographical Location

(U) WITS and open source data also provided insight into which geographical areas suffered the most attacks on train stations. From 2004 through 2009, most attacks took place in South Asia (61), followed by Europe (22), East-Asia Pacific (20), Central/ South America (2), Africa (2), and the Middle East (1).

(U) Attacks Inside Rail Stations

(U//FOUO) The easy public access of train stations provides terrorists with a variety of attack options. In previous attacks, terrorist groups targeted ticket counters, lobby areas, platforms, tracks, rail cars, restrooms, control rooms, parking lots, entrances, and exits. The intent of the attack may determine where an attack will occur. If a terrorist group seeks to cause mass casualties, the group will likely conduct the attack in lobby areas, on platforms, and in train cars. Attacks designed to cripple the transportation system itself would likely strike control rooms, tracks, bridges, or tunnels.



(U) Graphic representation of the May 2008 Dehiwala, Sri Lanka attack

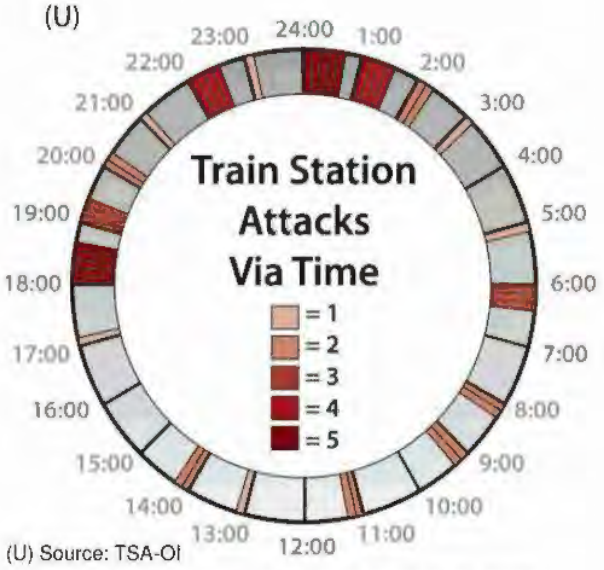
- (U//FOUO) September 2006: An IED detonated in the restroom of a train station in Yala, Thailand, and injured 20 people.[21]

(U//FOUO) Terrorist groups have also detonated IEDs on trains arriving or departing train stations.

- (U//FOUO) May 2008: One IED exploded inside a passenger train as it arrived at the train station in Dehiwala, Sri Lanka, killing 8 people and injuring 60.[22]

- (U//FOUO) February 2007: Sixty-eight people were killed when six IEDs detonated on a passenger train in Panipat, India, as it departed the station.[23]

(U//FOUO) IEDs have been placed on tracks and in control rooms of train stations. This is a frequent tactic aimed at disrupting service rather than generating casualties.



(U) Train station attacks via time, 2004-2009

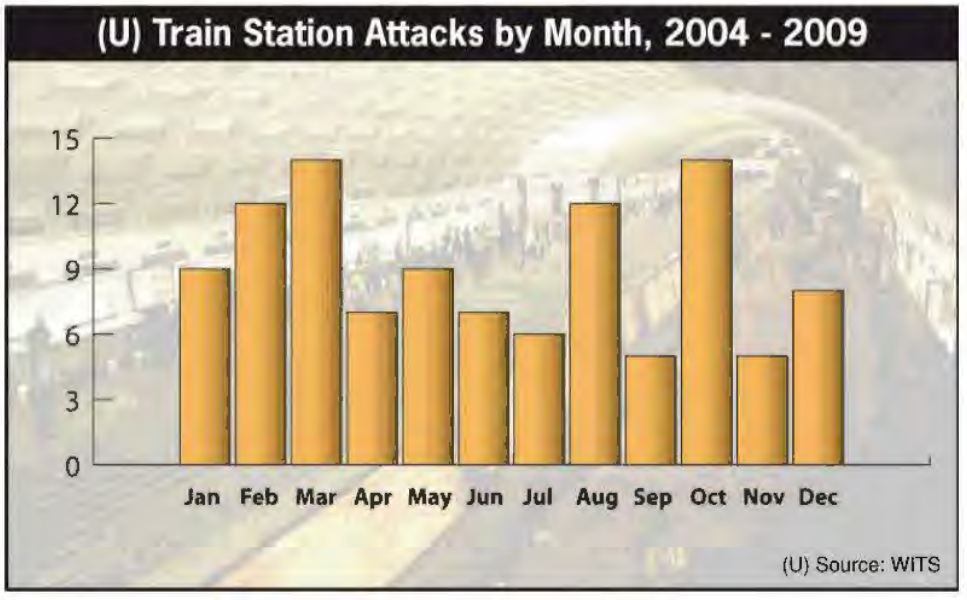
- (U//FOUO) July 2007: An IED was used against a targeting railway signal system that detects approaching trains at a rail station in Andhara, Pradesh. The attack damaged the station but caused no injuries.[24]

- (U//FOUO) March 2005: An unknown terrorist group detonated an IED on the tracks of the train station in Kandhkot, Pakistan, destroying a span of rail line but causing no injuries.[25]

(U//FOUO) Terrorist groups have also adopted the tactic of carrying out attacks in multiple locations within train stations. They have placed IEDs throughout train stations, most likely with the intent of maximizing casualties or attacking first responders.

- (U//FOUO) June 2009: An IED exploded on a passenger train at the train station in Zugdidi, Georgia. A second IED detonated in one of the station's trash cans, injuring one person.[26]

(U) Preferred Time of Attack



(U//FOUO) According to available data, the common period for an attack is between 18:00 and 01:00. Groups seeking to cause mass casualties attacked between 18:00 and 19:00, likely so their attacks would coincide with rush-hour crowds. These attacks killed a total of 265 people and wounded 1,105. Attacks aimed at damaging rail facilities and disrupting service often occurred between 23:00 and 01:00, when the passenger load and likelihood of detection was low.[27]

(U//FOUO) During 2004 to 2009, the most active months for attacks were March and October (14 attacks each), and the least active were September and November (5 attacks each). The rise and decline in attacks during these periods may be attributed to seasonal weather patterns that impact the volume of ridership or increased political activity on the part of the host nation's government.[28]

(U) Tactics

(U) Bombings

(U//FOUO) Since 2004, IEDs have accounted for 52 percent of attacks against train stations. IEDs are effective weapons that require little manpower, can disrupt service, and produce casualties. IEDs were detonated using a variety of methods including timing mechanisms and remote-detonation devices such as cell phones. IEDs used in attacks on train stations varied in size and were comprised of different materials that included, but are not limited to, dynamite, urea nitrate, ammonium nitrate, potassium chloride, sulphur, and Triacetone Triperoixde (TATP).

(U) Suicide Bombings

(U//FOUO) Since 2004, suicide bombings have accounted for 2 percent of attacks against train stations. In each incident, explosives were hidden in a backpack or concealed under the attacker's clothing. Violent Islamic extremists are suspected of attempting two attacks, while one attack in Sri Lanka was carried out by a secular group. Female suicide bombers participated in an unsuccessful attack in Russia and a successful attack in Sri Lanka. A suicide attack in Britain failed due to defective devices.[29]

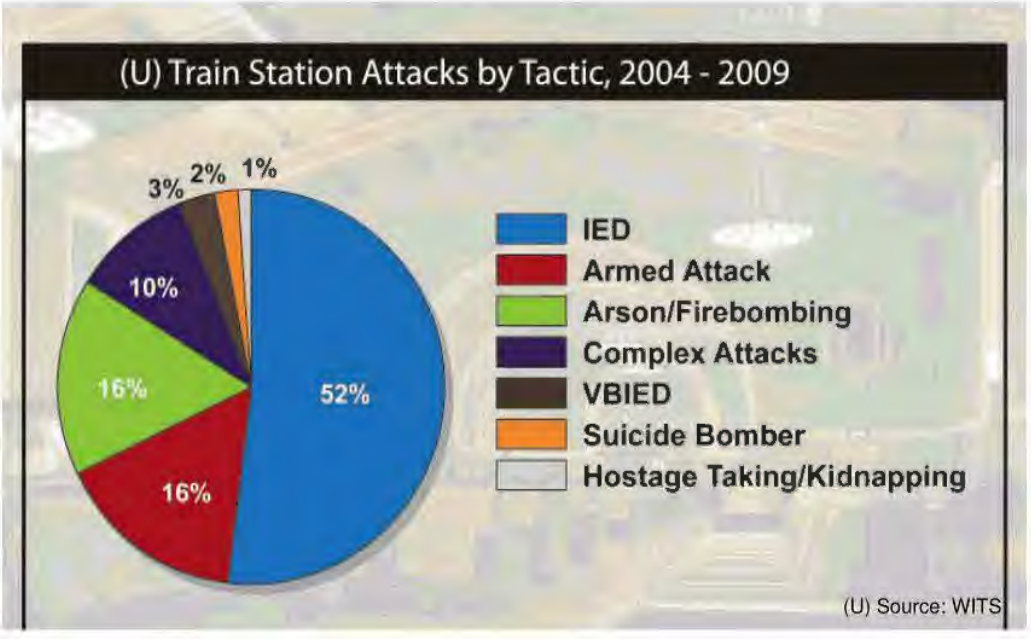
(U) Vehicle-Borne Improvised Explosive Devices (VBIEDs)

(U//FOUO) Since 2004, VBIEDs have accounted for 3 percent of attacks on train stations. Of these attacks two were successful, one plot was disrupted by authorities who were acting on a tip, and the last failed because the device was defective.[30] In each attack, the VBIEDs were left in the parking lot, near the front of the station, or near a rail line.

- (U//FOUO) January 2007: A VBIED was detonated at the entrance of a train station in Assam, India, wounding five people, and damaging the station.[31]

(U) Arson/Firebombings

(U//FOUO) Since 2004, arson/firebombing attacks have accounted for 16 percent of all attacks against train stations. These attacks occur predominately at night, resulting in varying degrees of damage, but no deaths.[32]



- (U//FOUO) March 2009: Members of an anarchist group forced travelers from a passenger train at a train station in Athens, Greece, and used gasoline and incendiary devices to set fire to it. The attack damaged eight passenger rail cars but caused no injuries.[33]

- (U//FOUO) February 2007: Members of an anarchist group in Spain used Molotov cocktails to attack a train station, causing damage to the control room and a ticket machine.[34]

(U) Armed Attacks

(U//FOUO) Since 2004, armed attacks have accounted for 16 percent of all attacks against train stations. During armed attacks, terrorist groups used small arms, hand-and rocket-propelled grenades, and mortars. These attacks killed at least 79 people and injured 125.

- (U//FOUO) November 2008: An attack on the Chhatrapati Shivaji Terminus in Mumbai, India, accounted for the majority of casualties recorded since 2004—killing 58 people and wounding 95.[35]

- (U//FOUO) January 2006: Unidentified gunmen attacked a train as it arrived at the station in Narathiwat, Thailand. This attack killed four people and injured one.[36]

(U) Complex Attacks

(U//FOUO) Since 2004, complex attacks have accounted for 10 percent of all attacks against train stations. These attacks incorporated different weapons and tactics such as small arms, IEDs, and hostage taking. They resulted in 6 deaths, 2 injuries, and 36 hostages. All of these attacks were carried out by secular or political groups.[37]

(U) Hostage Taking and Kidnapping

(U//FOUO) Since 2004, hostage taking and kidnapping have accounted for only 1 percent of attacks on train stations. These events were preceded by terrorists creating barricades along the rail line and later releasing the victims.[38]

(U) Indications and Warnings

(U//FOUO) Although a single indicator may not be suspicious by itself, one or more, in combination, may signify a suspicious activity. Indicators of terrorist preoperational activity or attack preparations targeting train stations may include the following:

- (U//FOUO) Individuals at or near train stations videotaping/observing the station or passenger rail cars;

- (U//FOUO) Individuals seen at or near the train station with maps, diagrams, or photos of the facility;

- (U//FOUO) Individuals observed parking or loitering near the train station over a period of multiple days with no solid explanation;

- (U//FOUO) Unattended bags left in public areas to observe reaction time and procedures of first responders;

- (U//FOUO) Passengers who wear oversized coats, dress inappropriately for the weather conditions, or carry baggage that is excessively bulky, stained, or emitting fumes;

(U//FOUO) July 2008: British authorities disrupted a terror plot against the London Tube after stopping and questioning a suspect with a video camera containing surveillance photos of several London train stations.[39]

- (U//FOUO) A pattern of bomb threats against a train station;
- (U//FOUO) Theft of transit authority identification cards, uniforms, or equipment;
- (U//FOUO) Encounters with people posing as railroad employees; and
- (U//FOUO) Unexplained damage to a train station perimeter fence.

(U//FOUO) February 2006: A New York Surface Transportation Security Supervisor reported the theft of Long Island Rail Road (LIRR) equipment including a LIRR hard hat, safety vest, short sleeve uniform shirt, study material, lantern, and blazers from an employee's vehicle.

(U) Conclusion

(U//FOUO) TSA-OI assesses that train stations will continue to be a likely target for terrorist groups worldwide because they are considered soft, static targets with a mix of easy access points and confined spaces. TSA-OI assesses that IEDs will be the most likely weapon of choice in an attack on a train station. The leave-behind-IED used inside a train station may be the most likely tactic; however, the use of a suicide bomber or armed attack cannot be discounted.

(U//FOUO) Tracked by: HSEC-02-03004-ST-2009

(U//FOUO) Prepared by TSA's Office of Intelligence, Transportation Analysis Branch. For dissemination questions, contact TSA-OI_Production@tsa.dhs.gov.

(U) Endnotes

1 (U) Worldwide Incidents Tracking System; http://wits.nctc.gov; 25 January 2010; (U)
2 (U) U.S. Army, Training and Doctrine Command; TRADOC G2; "(U) TRADOC G2 Handbook No 1.06;" (U); 4 August 2008; (U) 15 September 2008
3 (U) Worldwide Incidents Tracking System; http://wits.nctc.gov; 25 January 2010; (U)
4 (U) U.S. Army, Training and Doctrine Command; TRADOC G2; "(U) TRADOC G2 Handbook No 1.06;" (U); 4 August 2008; (U) 15 September 2008
5 (U) U.S. Army, Training and Doctrine Command; TRADOC G2; "(U) TRADOC G2 Handbook No 1.06;" (U); 4 August 2008; (U) 15 September 2008
6 (U) Worldwide Incidents Tracking System; http://wits.nctc.gov; 25 January 2010; (U)
7 (U) Worldwide Incidents Tracking System; http://wits.nctc.gov; 25 January 2010; (U)
8 (U) Worldwide Incidents Tracking System; http://wits.nctc.gov; 25 January 2010; (U)
9 (U) Worldwide Incidents Tracking System; http://wits.nctc.gov; 21 July 2009; (U)
10 (U) Worldwide Incidents Tracking System; http://wits.nctc.gov; 20 August 2009; (U)
11 (U) Worldwide Incidents Tracking System; http://wits.nctc.gov; 25 January 2010; (U)
12 (U) Worldwide Incidents Tracking System; http://wits.nctc.gov; 21 July 2009; (U)
13 (U) Worldwide Incidents Tracking System; http://wits.nctc.gov; 22 September 2009; (U)
14 (U) Worldwide Incidents Tracking System; http://wits.nctc.gov; 19 August 2009; (U)
15 (U) OSC; EUP20050527950014; 27 May 2005; (U)
16 (U) OSC; SAP20040108000002; 8 January 2004; (U)
17 (U) Worldwide Incidents Tracking System; http://wits.nctc.gov; 25 January 2010; (U)
18 (U) Worldwide Incidents Tracking System; http://wits.nctc.gov; 19 August 2009; (U)
19 (U) Worldwide Incidents Tracking System; http://wits.nctc.gov; 22 September 2009; (U)
20 (U) Worldwide Incidents Tracking System; http://wits.nctc.gov; 21 July 2009; (U)
21 (U) OSC; FEA20060616042338; 16 June 2006; (U)
22 (U) BBC; 26 May 2008; "(U) Bomb Rocks Busy Sri Lankan Train;" (U)
23 (U) BBC; 19 February 2007; "(U) Dozens Dead in Indian Train Blasts;" (U)
24 (U) Worldwide Incidents Tracking System; http://wits.nctc.gov; 21 July 20009; (U)
25 (U) Worldwide Incidents Tracking System; http://wits.nctc.gov; 8 August 2009; (U)
26 (U) Worldwide Incidents Tracking System; http://wits.nctc.gov; 20 August 2009; (U)
27 (U) Worldwide Incidents Tracking System; http://wits.nctc.gov; 25 January 2010; (U)
28 (U) Worldwide Incidents Tracking System; http://wits.nctc.gov; 25 January 2010; (U)
29 (U) Worldwide Incidents Tracking System; http://wits.nctc.gov; 25 January 2010; (U)
30 (U) Worldwide Incidents Tracking System; http://wits.nctc.gov; 25 January 2010; (U)
31 (U) Worldwide Incidents Tracking System; http://wits.nctc.gov; 19 August 2010; (U)
32 (U) Worldwide Incidents Tracking System; http://wits.nctc.gov; 25 January 2010; (U)
33 (U) OSC; EUP20090304430017; 4 March 2009; (U)
34 (U) Worldwide Incidents Tracking System; http://wits.nctc.gov; 21 July 2009; (U)
35 (U) Worldwide Incidents Tracking System; http://wits.nctc.gov; 25 January 2010; (U)
36 (U) OSC; JPP20060130062006; 30 Jan 2006; (U)
37 (U) Worldwide Incidents Tracking System; http://wits.nctc.gov; 25 January 2010; (U)
38 (U) Worldwide Incidents Tracking System; http://wits.nctc.gov; 25 January 2010; (U)
39 (U) www.timesonline.co.uk; 16 December 2009; "(U) Beat Officer Prevented Terror Attack by Stopping Suspicious Tourist," (U)

VII. Appendix F: Critical Asset Assessments

(b)(3):49 U.S.C. § 114(r)

VIII. Appendix G: System Security Assessment Results

(b)(3):49 U.S.C. § 114(r)

The table above shows the average BASE score, represented as a percentage, for the top 55 transit systems. (b)(3):49 U.S.C. § 114(r)

(b)(3):49 U.S.C. § 114(r)

IX. Appendix H: Excerpt from 2007 RAND Study Securing America's Passenger-Rail Systems

Securing America's Passenger-Rail Systems

Jeremy M. Wilson, Brian A. Jackson, Mel Eisman,
Paul Steinberg, K. Jack Riley

Supported by the National Institute of Justice

Homeland Security

A RAND INFRASTRUCTURE, SAFETY, AND ENVIRONMENT PROGRAM

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Table 5.16
System-Level Security-Improvement Recommendations

Responses	Security-Improvement Recommendations	Average Marginal Annual Cost ($ millions)
Inexpensive solutions with highest cost-effectiveness payoffs	Implement enhanced security training (SIO 1.0)	0.14
	Use portable (handheld) detection systems (SIO 7.0)	0.62
	Increase number of signs and public-address announcements (SIO 4.1)	0.04
	Install blast-resistant containers (SIO 12.0)	0.21
	Add canine team (SIO 2.0)	0.63
Inexpensive solutions with reasonable cost-effectiveness payoffs	Install retractable bollards (SIO 13.2)	0.03
	Institute employee background checks and issue updated badges (SIO 3.0)	0.06
	Install structurally reinforced pillars (SIO 14.0)	0.27
	Install rail-information status displays (SIO 4.2)	0.22
More expensive solutions with highest cost-effectiveness payoffs	Install fixed blast barriers (SIO 13.1)	0.87
	Install perimeter fencing and IDSs (SIO 5.0)	3.1
	Install perimeter fencing and perimeter surveillance systems (SIO 8.0)	4.75
	Implement hybrid security system (SIO 11.0)	8.30
Expensive, longer-term solutions for future consideration	Add rail-vehicle surveillance systems (SIO 9.0)	1.35
	Upgrade personnel ACSs (SIO 10.0)	1.40
	Install passenger- and baggage-screening systems (SIO 6.0)	1.75
	Install tunnel surveillance system (SIO 8.1)	3.06

Before generating an integrated system-security implementation plan, security planners should prioritize the list of recommended SIOs based on a logical order of implementation. Prioritization of the list of recommended SIOs could occur through

X. Appendix I: Methodologies

TSSRA Methodology

TSA established a team of risk management and security experts within the national transportation system to develop the TSSRA methodology. TSA used the specialized experiences and backgrounds of these risk experts, coupled with the results and findings from risk methodologies and assessments throughout DHS and published reports from the Government Accountability Office (GAO) to develop this methodology. TSA also applied a scenario-based approach that utilized the generally accepted terrorism risk analysis framework of risk as a product of threat, vulnerability, and consequence.

TSA used fault-tree analysis to develop attack scenarios. Several thousand possible combinations of infrastructure elements and terrorist attack methods were initially identified. Using the Failure-Modes and Effects Analysis method, in conjunction with a survey/elicitation of subject matter experts (SME), TSA narrowed this exhaustive set of scenarios to approximately (b)(3):-4 attack scenarios deemed reasonable and credible. TSA organized these attack scenarios by similar attack methodologies, then grouped them into (b)(3): attack families.

TSA intelligence analysts derived estimates for capability and intent by using an intelligence-based adversary intent and capability scoring method or rubric. For the aviation mode, the estimates were also validated by aviation SMEs from the intelligence community (IC), including those from DHS, Defense Intelligence Agency, DOT, Drug Enforcement Administration, Federal Bureau of Investigation, NCTC, Office of the Director of National Intelligence and the United States Air Force.

TSA developed vulnerability estimates through a series of facilitated sessions with stakeholders from the Federal Government and industry. These stakeholders, from 131 organizations, added additional detail to the (b)(3): attack scenarios by reviewing the set of possible targets and attacks methods during facilitated sessions. During these facilitated sessions, they assigned vulnerabilty scores to each of the (b)(3): attack scenarios.

TSA derived consequence scores from a combination of engineering studies, input from SMEs in transportation security and operations, and economic analysis based on regional economic impact modeling. Per the 2009 National Infrastructure Protection Plan (NIPP), consequence variables include both direct costs of an attack as well as indirect costs associated with loss of revenue, impact on tourism, and other downstream impacts associated with the attack[3].

---

[3] 2009 NIPP Pages 34-35, Section 3.3.3 - Consequence Assessments

Finally, TSSRA assessed risk by taking the product of the threat value, the corresponding vulnerability value, and the corresponding consequence value.

BASE Methodology

Under the BASE program, TSA Transportation Security Inspectors-Surface assess the security posture of mass transit and passenger rail agencies in 17 Security and Emergency Management Action Items. The Action Items were developed in a joint effort with DHS/TSA, DOT/ Federal Transit Administration, and mass transit and passenger rail operating and security officials engaged through the Mass Transit Sector Coordinating Council, and cover a range of areas that are foundational to an effective security program.

The specific purpose of the BASE program is to evaluate, across multiple areas using a thorough checklist and narrative responses, the effectiveness of security programs, procedures, and measures developed and implemented by mass transit and passenger rail agencies. The results of these assessments inform the development of risk mitigation priorities, security enhancement programs, and resource allocation decisions, notably transit security grants. The assessments also provide the critical underpinning of the security strategy: a continuous improvement process. Conducted on a periodic basis, the BASE assessments enable comparative analysis of results to provide an objective evaluation of progress in mitigating security risk, both on an individual system-level and a nationwide basis.

XI. Appendix J: Smart Security Practices

SMART SECURITY PRACTICES

MASS TRANSIT AND PASSENGER RAIL SYSTEMS

December 2009

TABLE OF CONTENTS

SMART SECURITY PRACTICES
MASS TRANSIT AND PASSENGER RAIL SYSTEMS

Background: Beginning with pilot efforts in August 2006 and full implementation as of November 2006, the Transportation Security Administration (TSA) has conducted security assessments on mass transit and passenger rail systems under the Baseline Assessment for Security Enhancement (BASE) program. The assessments measure a system's implementation of the Security and Emergency Management Action Items, jointly developed by TSA and the Federal Transit Administration (FTA) in coordination with the Mass Transit Sector Coordinating Council.

TSA Surface Transportation Security Inspectors perform the assessments, with the cooperation and direct involvement of security and operating officials of mass transit and passenger rail agencies.[1] In the course of conducting assessments, the inspectors identify smart security practices developed and implemented by the particular agency. This activity not only recognizes the agency's security enhancement efforts but also produces the kind of information that, consolidated and shared among security professionals, can encourage broader adoption of effective security measures.

The result is this compilation of Smart Security Practices, listing the most effective security activities, measures, practices, and procedures cited in the results of the BASE assessments completed to date. The compilation concisely summarizes 55 Smart Security Practices and provides contact information for the appropriate official(s) at the implementing mass transit and passenger rail agencies. TSA hopes this product will facilitate exchange of this important information, enabling officials of other mass transit and passenger rail agencies to obtain additional details, discuss how the particular practice has been developed and implemented, and consider how it may be adapted to the operational circumstances of other systems.

TSA envisions this list as dynamic, to be expanded and periodically revised as new security assessments and other engagement with the mass transit and passenger rail community identifies additional smart practices.

Feedback on this product is welcome. In this vein, it is important to note that this compilation is not, nor is it intended to be, a comprehensive or exclusive listing of the broad range of security activities employed each day in the nation's mass transit and passenger rail systems. TSA recognizes and appreciates the resources and efforts mass transit and passenger rail agencies around the country devote to enhancing their security posture and protecting the riding public.

In particular, we encourage mass transit and passenger rail agencies to submit security practices they believe warrant consideration as a smart security practice for addition to this list. Working together, we can ensure smart security practices gain the recognition they deserve and the dissemination that will help elevate security generally in the mass transit and passenger rail mode.

The smart practices are grouped by six strategic security priority areas. The strategic priorities are described below, followed by the Smart Security Practices.

---

[1] This publication reflects the product of 63 BASE reviews conducted as of April 15, 2008, which covered 47 of the largest 50 mass transit agencies with second assessments in two cases, 9 additional agencies ranked in the 51-100 range, and 5 smaller systems.

STRATEGIC SECURITY PRIORITIES

1. Regional Partnerships and Information Sharing. Establishing regional partnerships and information sharing processes enable mass transit and passenger rail agencies to expand the scope of resources available for security enhancement activities in support of and throughout their systems. Experience from past incidents has repeatedly demonstrated that advance coordination, close collaboration, and timely sharing of intelligence and information enhance security and emergency response capabilities. Collaborative arrangements, regional databases, and alert networks among transit agencies, first responders in the systems' operating jurisdictions, and regional, State and Federal security partners, are particularly important for improving terrorism prevention and response. Joint seminars, workshops and the sharing of bulletins and information collectively raises security posture and enables transit agencies to "connect the dots" and facilitate detection and deterrence of terrorist and criminal activity.

2. Use of Random, Unpredictable Deterrence. Terrorist planners conduct reconnaissance, observations, and dry runs to assess the state of security in a target location or system and to identify gaps and patterns. In particular in the open, accessible, high volume, and fast-paced environment in mass transit and passenger rail systems, an effective security program employs a range of security activities in visible, random, and unpredictable applications. This operational approach can disrupt observation and reconnaissance, extend planning periods, and increase opportunities for detection, enhancing overall deterrence and prevention. The visible activities instill greater security awareness and confidence in the riding public, which can foster increased reporting of suspicious activities. Regional collaboration efforts expand the range of resources available for random, unpredictable application in mass transit and passenger rail systems. Targeted training of the system's employees, including law enforcement, bolsters the effectiveness of anti-terrorism activities.

3. Advancing the Security Baseline. This important category encompasses actions taken to enhance security planning, operations, and procedures. The Security and Emergency Management Action Items address a range of areas that are foundational to an effective security program. Internal security audits and assessments by outside entities, such as TSA through the BASE program, elevate security posture by rating effectiveness of implementation of security plans, programs, and measures and identifying areas where improvements are needed. Assessment results inform development of effective security programs, focused resource allocations, and responsive grant project proposals. Overall, the objective is to advance capabilities and readiness in mass transit and passenger rail agencies nationally by maximizing the effective application of available security resources for terrorism prevention and response. This category captures these efforts, currently grouped as follows:

3.a. *Employee Awareness and Action Guides*
3.b. *Enhanced Security Oversight*
3.c. *Background Checks for Employees & Contractors*
3.d. *Physical Security*

These categories will expand as future assessments identify additional smart practices in this general area.

4. Counterterrorism Training and Preparedness Exercises. Targeted training enhances detection and prevention capabilities and ensures a rapid, prepared response in the first critical minutes after an attack – steps that can significantly reduce the consequences of the attack. Well trained and rehearsed employees ensure timely and effective actions to resolve a threat and minimize the potential exposure to harm of both the traveling public, system personnel, and vehicles, equipment, and other infrastructure. In the event of an attack or other security incident, effective responsive actions mitigate the scope of consequences and facilitate more rapid recovery. Training should focus on security awareness, behavior recognition, immediate response to a threat or incident, and operations control or dispatch center readiness.

Experience shows that well designed and regularly practiced drills and exercises are fundamental to rapid and effective response and recovery. Transit agencies should develop meaningful drills that test prevention capabilities, response effectiveness, and coordinated efforts with first responders, law enforcement, and other supporting entities, such as Federal agencies in their areas with security and law enforcement responsibilities. In addition to large regional drills, transit systems should also conduct regular, transit-focused drills. Drills and exercises should test anti-terrorism capabilities as well as response and recovery for both natural disasters and terrorist attacks.

5. Technology Applications to Mitigate High Consequence Risks. Mass transit and passenger rail agencies should develop and implement protective measures where a terrorist attack would have the most significant impact in terms of casualties, property damage, and disruption of service – the highest risk, highest consequence assets and systems. Effective integration of security technologies serves as a security force multiplier, expanding capabilities, guiding the focus and enhancing the effectiveness of operational activities for best mitigating risk, and reducing personnel costs. A key component of the overall security program, technologies advance prevention by augmenting detection and deterrence capabilities. Examples include visual surveillance with remote monitoring, smart camera systems that key on suspect activities or items, intrusion detection and other access control systems, hardening of infrastructure, and equipment to detect explosives and other hazards, such as chemical, biological and radiological threats.

6. Public Awareness and Preparedness Campaigns. Successful security programs in all industries recognize the value and power of the public's "eyes and ears." Awareness programs should be well designed and employ innovative ways to engage the riding public to become part of their "transit security system." Multi-media campaigns should convey messages emphasizing the importance of the public's continuing vigilance and clearly delineate how suspicious persons, activities, or items are reported in the particular mass transit or passenger rail system. Including the riding public in preparedness and evacuation drills also enhances security awareness and facilitates emergency response actions. Persistence in keeping the public informed and vigilant contributes directly to the effectiveness of law enforcement and security effort.

SMART SECURITY PRACTICES

In Sincere Appreciation

The completion of this product results from the efforts of numerous professionals committed to the security and safety of passengers, employees, and law enforcement officers in the nation's mass transit and passenger rail systems. We gratefully acknowledge the work of:

- The law enforcement chiefs and security directors, managing officials, law enforcement and security officers, and employees of the assessed mass transit and passenger rail agencies.

- The leadership and field inspectors of the Surface Transportation Security Inspection Program, Office of Security Operations, Transportation Security Administration.

- The leadership and staff of the Mass Transit Division, Transportation Sector Network Management, Transportation Security Administration.

Additionally, we recognize the leadership and staff of the Office of Safety and Security of the Federal Transit Administration, and the dedicated members of the Mass Transit Sector Coordinating Council and the Transit Policing and Security Peer Advisory Group for their collective contributions to the development of the Security and Emergency Management Action Items and the Baseline Assessment for Security Enhancement (BASE) process.

Success in the security mission depends upon collaborative efforts like those reflected in the activities, practices, procedures, and measures cited in this product and devoted to its preparation. Harnessing and focusing the expertise and experience of security partners in the mass transit and passenger rail community and the Federal government produces a synergy that enhances the effectiveness of all of our efforts.

Arlington, Virginia
December 2009

Relevant TSF(s)	Smart Practice Description from BASE	Agency	Date of Roundtable	BASE Question
1,3 Regional Partnerships and Information Sharing	Agency utilizes two distinct means of communicating with front line personnel. First, a special memorandum is used to convey time sensitive information, including urgent security news, in a special alert format called "Fast Lane". These alerts are posted in the assembly area where employees report for work. "Fast Lane" contains information that needs to be known immediately by all operators and front line personnel. Second, the agency distributes a monthly publication on general District wide news, that includes current Security related issues. "Inside Lane" covers the more general alert information without the immediate urgency.	Lane County Transit (Eugene, OR)	December-09	3.101
1,3 Regional Partnerships and Information Sharing	Established back-up ops center at the New York State- Dept of Transportation-Region 3 through MOU dated 03-24-04. The MOU clearly defines the agreement to collaborate in planning, resource management and other activities relating to Emergency Management for the mutual benefit of parties.	Central New York Regional Transportation Authority (CENTRO)	December-09	12.125
1,4 Regional Partnerships and Information Sharing	Metrolink has three ways to train local emergency responders in railroad safety and security issues. We have sent a letter to each of the emergency responders outlining our approach. The first involves a self-taught approach which consists of a Metrolink produced 9 minute video tape with appropriate written material on Metrolink. This is designed so that the emergency response trainers can provide this training in house. The second method is for SCRRA to provide a trainer to go to the emergency responder training site and provide classroom instruction in a three hour block using video tapes and slides. The third method is for the emergency responder to come to a railroad location and receive hands-on training and classroom instruction. As of July 2005 we have trained over 5000 emergency personnel and participated (with rail equipment in over 25 full scale drills).	Southern California Regional Rail Authority (Metrolink) (Los Angeles)	December-09	5.132
1,4 Regional Partnerships and Information Sharing	A TARC mechanic teaches firefighters how to effectively fight bus fires and has given a PowerPoint presentation to Louisville area police departments on TARC's roles and capabilities during emergency situations. In addition, TARC loans buses to the Louisville Metro Police Department SWAT Team for training on boarding buses in crisis situations. TARC is working with the Louisville Metro Police Department Bomb Squad to allow them to use a bus to test the bomb squad's robot's capabilities in boarding and responding to a bomb threat on a bus.	Transit Authority of River City (Louisville)	December-09	5.132
1,4,5 Regional Partnerships and Information Sharing	The Fairfax Connector Bus System bus operators can talk directly to public safety agencies in Fairfax County through on board 800 MHz radios. The County has a state of the art 800 MHz radio system that includes all major county entities including the Fairfax Connector bus system in its software talk groups. This radio system enables bus operators to talk directly with police, fire, or rescue agencies during emergencies through the use of pre-designated talk groups. It has been tested several times, and has performed admirably. Yes, the bus radio system is interoperable with emergency response agency (Police, Fire and Rescue) radio systems in the Northern Virginia regions.	Fairfax Connector (Fairfax, VA)	December-09	4.110

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1 Regional Partnerships and Information Sharing	Chicago Transit Alert Network (CTAN) enables regional transit members to share information in a timely manner and provide immediate alerts, advisories, and warnings.This network provides information to local, state and federal agencies, and the Surface Transportation Information Sharing and Analysis Center (ST-ISAC). Agreed protocols define levels of alerts and notifications by the type and circumstances of the incidents, event, or activity and the format of the messages.The initial awareness notification is made by telephone among the primary members of CTAN.Upon confirmation, the Emergency Management Network (EMNET) is used to broadcast messages to over 400 agencies in the region, including freight railroads, the ST-ISAC, local, state and federal security, law enforcement, emergency management and intelligence agencies, with TSA included in these alerts and notifications.ST-ISAC further disseminates alerts, advisories, warnings, and other security-related information to a broader community interested in mass transit and passenger rail security, including other transit and rail systems and security, law enforcement, emergency management, and intelligence fusion centers throughout the nation.Communications means include telephonic notifications and EMNETs.	Chicago Transit Authority, Metra, Northern Indiana Commuter Transportation District (NICTD), PACE Bus, Amtrak	June-08	
1 Regional Partnerships and Information Sharing	Personnel from these agencies received training from TSA-LAX in Surveillance (Behavior) Detection. A consolidated training curriculum and approach for transportation stakeholders, including professionals from area transit and rail systems and supporting law enforcement departments, proved effective in expanding regional collaboration and anti-terrorism capabilities in the common mission to enhance transportation security. Trained members representing each transit agency and law enforcement department then customized the information to the needs of their individual organizations' training programs. Provided as a train-the-trainer approach, this collaborative effort has established cadres within the participating transit agencies and law enforcement departments to provide Surveillance (Behavior) Detection training to colleagues within their organization.	Los Angeles County Metropolitan Transportation Authority, Metrolink, Long Beach Transit, Orange County Transportation Authority	June-08	
1 Regional Partnerships and Information Sharing	Long Beach Police Department Transit Enforcement Officers (LBPD-TEOs) are responsible for all routes and assets of Long Beach Transit, extending their normal law enforcement jurisdiction to 13 cities and jurisdictions that LBT serves. LBPD-TEOs maintain cooperative relations with jurisdictions in response/support of calls for security and other police services. LBPD-TEOs conduct overt and covert operations to provide visible security presence, heightened awareness, and concerted law enforcement security measures throughout the Long Beach Transit system. In addition, the LBPD-TEOs conduct random sweeps of areas of security concern identified through intelligence or law enforcement agencies, producing unity of effort through common training and coordinated prevention and response capabilities. Long Beach Transit and LBPD maintain information sharing at many levels.	Long Beach Transit Authority	June-08	

Relevant TSF(s)	Smart Practice Description from BASE	Agency	Date of Roundtable	BASE Question
1 Regional Partnerships and Information Sharing	MBTA Transit Police Weekly Intelligence Bulletin, a Law Enforcement Sensitive product that provides reports on terrorist activity around the world to transit security personnel in the U.S., Canada, Britain, and Italy. The MBTA Transit Police Intelligence Unit was created following the Democratic National Convention in 2004. The unit is led by a Detective Lieutenant and deploys a staff of one sergeant detective (assigned to the Boston Joint Terrorism Task Force) and five detectives. The unit employs one analyst and a college student intern. The analyst is funded by DHS security grant funding. MBTA expects to hire two additional analysts through DHS security grant funding as well. The weekly bulletin reports on terrorist incidents and significant events as they pertain to mass transit and/or rail. The unit collects intelligence from international sources, as well as, federal, state, and local agencies. Members participate in regular conference calls with their counterparts locally, nationally, and internationally. The unit has been designated as the lead agency for the collection of mass transit and rail intelligence by the Massachusetts Executive Office of Public Safety. The bulletin also contains sections on trends and analysis of local criminal and suspicious activity. It also contains timely bulletins from DHS, FBI, and other federal agencies. Each bulletin always contains component focused specifically on training.	Massachusetts Bay Transportation Authority (MBTA) (Boston)	June-08	
1 Regional Partnerships and Information Sharing	Security and Emergency Response Seminars for local law enforcement, fire departments, and emergency managers to familiarize them with Metra's critical facilities, and its security and emergency response programs. Seminars are held every quarter, to increase regional coordination and communications for responding to emergencies. To facilitate emergency response, Chicago Fire Department maintains a current diagram of each Metra facility.	Metra Chicago	June-08	
1 Regional Partnerships and Information Sharing	Regional Resource Database contains resource information from New Jersey Transit and is maintained by the State of New Jersey. This system enables emergency management organizations to query resource availability by type and location. Agencies can the request the availble resource(s) for depolyment.	New Jersey Transit Light Rail	June-08	
1 Regional Partnerships and Information Sharing	Interoperable Communications is a state of the art system that enables communications between many types of dissimilar systems, e.g. radios, telephones, computers, cell phones, establishing a consolidated security network for threat and incident response and other emergencies. The Radio InterOperability System (RIOS) network integrates over 100 law enforcement and non-law enforcement entities with fully interoperable communications. All of the transit agencies in the Philadelphia region are integrated into the network with SEPTA. Licensed participating entities, such as the Pennsylvania State Police, New Jersey State Police, Delaware State Police, and the Federal Bureau of Investigation, can communicate fully using RIOS, with or without active SEPTA participation on the network. Non-licensed agencies, such as The Delaware River Port Authority (the parent company of the Port Authority Transit Corporation, providing commuter service between southwestern New Jersey and Philadelphia) and multiple smaller law enforcement agencies for area townships, have all their radio frequencies programmed into the SEPTA network, assuring full-time interoperability communications capability. Memoranda of Understanding with all participating agencies advance collaboration and ensure continuity.	Southeast Pennsylvania Transportation Authority (SEPTA)	June-08	

Relevant TSF(s)	Smart Practice Description from BASE	Agency	Date of Roundtable	BASE Question
2 Use of Random, Unpredictable Deterrence	On a random, unpredictable basis, a large contingent of Metro Transit Police Department (MTPD) officers, generally between 6 and 20 members, including a canine team, blanket Metrorail stations to look for suspicious activity. The team is made up of a cross section of the police force including supervisors, administrative officers, and patrol members. Stations are chosen randomly with deployments at random times for surprise station and train inspections. TTI team members spread out along the length of the station platform and inspect every train as it stops to disembark and embark passengers. In the event of a suspicious person or package, the MTPD has the equipment and staff on location to quickly investigate the situation. Feedback from the public has been very positive. As an element of this program, MTPD officers conduct "Tunnel Inspections" These inspections focus on underwater tunnels and are conducted by police officers who have underwater tunnels as part of their patrol assignment for the day. The MTPD, with the collaborative efforts of the Washington Metropolitan Area Transit Authority's Rail Operations Control Center allow the police officers to board the train operator's cab before the train enters into the underwater tunnel to view the tracks and tunnel walls ahead for indications of suspicious conditions or activity. Every officer who has a tunnel in his or her patrol area is required to conduct an inspection of that tunnel at least twice during his/her tour of duty. Generally, multiple tunnel inspections are conducted per day for each underground/underwater tunnel.	Washington Metro Area Transit Authority (WMATA)	December-09	5.131, 7.112
2 Use of Random, Unpredictable Deterrence	Zone Enforced Unified Sweeps (ZEUS) - random, high visibility security deployments used as a terrorist deterrent and police training tool, frequently employed throughout the system by multiple disciplines of law enforcement officers of the MTA Police. Prominent visible activities, such as the presence of marked police cars and the display of emergency equipment, enhance the deterrent effect.	Maryland Transit Administration (MTA)	June-08	
2 Use of Random, Unpredictable Deterrence	Impact and Atlas Teams: High Visibility Impact Teams (a supervising sergeant and several officers per team perform security patrol on subways in random deployments day and night. Regional coordination allows for freely crossing district boundaries. ATLAS teams consist of Special Operations Officers deployed in teams with canine capabilities and trained in behavior recognition and response. ATLAS teams are also trained to secure a scene contaminated by chemical, biological, radiological, or nuclear (CBRN) material. ATLAS augments MBTA's Special Weapons and Tactics (SWAT) capability.	MBTA (Boston)	June-08	

Relevant TSF(s)	Smart Practice Description from BASE	Agency	Date of Roundtable	BASE Question
2 Use of Random, Unpredictable Deterrence	Security Inspection Program: MBTA established the first program in the nation to conduct random, non-invasive checks of passengers' bags using explosives trace detection equipment, prior to entering transit facilities. The MBTA Police Department deploys teams on a daily basis in locations selected randomly, augmented by collaboration with TSA Visible Intermodal Prevention and Response (VIPR) operations. The MBTA teams consist of a transit police supervisor, two patrol officers, a TSA-sponsored explosive detection canine, and detectives from the MBTA Transit Police Intelligence Unit. The explosive detection equipment used is the General Electric Itemizer III Trace Detection Unit. Originally, the MBTA purchased four machines through the Massachusetts Executive Office of Public Safety (EOPS). In 2007 the department upgraded the equipment and purchased an additional two machines with funds provided by EOPS as part of the January 2007 LED bomb hoax settlement. MBTA Transit Police bomb squad is maintained on standby alert to provide immediate assistance. Each random inspection entails an average 10-second process, with high deterrent value.	MBTA (Boston)	June-08	
2 Use of Random, Unpredictable Deterrence	Targeted Patrols During Heightened Threats: Partners with Bloomington, Minnesota Police Department, Minneapolis/St. Paul International Airport Police Department, and the Mall of America Security Department to provide increased security presence on trains and buses traveling through heavily trafficked stations during periods of heightened threat. Interior and exterior of railcars and buses undergo physical security inspection before entering high traffic stations. Program is implemented fully when DHS HSAS Alert is Orange or higher as well as partly and randomly during periods of high ridership (holiday travel, shopping season, special events).	Metro Transit Minneapolis	June-08	
2 Use of Random, Unpredictable Deterrence	Random Security Surges, Deployments, and Inspections: New York Police Department (NYPD) Transit Bureau employs visible, unpredictable (random) security deployments and surges, including canine units and plainclothes patrols, on trains and at stations. Random inspections conducted of underwater tunnels and emergency exits. Numerous Critical Response Vehicle (CRV) patrol cars blanket areas of the city and co-located subway stations in random, unpredictable security enhancement surges. Operation Atlas uses additional resources to flood the transit system with enhanced security activities during rush hour as well as heightened alert periods. Resources are targeted based on threat information. Randomly deployed Train Order Maintenance Sweeps (TOMS) surge uniformed police officers to platforms to inspect arriving trains. Plainclothes EAGLE teams monitor train yards and lay-up areas for intrusion.	MTA (New York City)	June-08	
2 Use of Random, Unpredictable Deterrence	Random Passenger Baggage Screening: Specially-trained NYPD officers conduct random inspections of passengers' bags using explosives and trace detection equipment in unpredictable deployments throughout the subway system. This program's random inspection protocol and police officer operating guidelines have been upheld as appropriate in legal challenges raised in Federal court.	MTA (New York City)	June-08	
2 Use of Random, Unpredictable Deterrence	Random Security Deployments and Inspections: Port Authority Police Department (PAPD), PATH Command, executes "Operation Rolling Eagle," which consists of police saturation in and around stations and other system facilities, random canine team patrols, and random inspections of passengers' bags. PAPD officers are assigned at each PATH facility. PAPD canine teams conduct random security inspections of stations and train cars. Conductors inspect each car randomly throughout the train's run on the particular service route.	Port Authority Trans Hudson (PATH)	June-08	

Relevant TSF(s)	Smart Practice Description from BASE	Agency	Date of Roundtable	BASE Question
2 Use of Random, Unpredictable Deterrence	Random High-Intensity Targeted Inspections: Random, high visibility, targeted saturations by transit police of selected venues within WMATA, including rail stations, trains, buses, underwater tunnels, and other critical facilities. Transit Police utilize canine teams, special response team members, sworn administrative members, and uniformed patrol officers during surges. Regional, multi-agency police high visibility surges performed at rail and bus facilities during special events and periods of increased alert. Police randomly inspect tunnels while riding in operator cab.	Washington Metro Area Transit Authority (WMATA)	June-08	
3,1,4 Advancing the Security Baseline	MCTS created the Mass Transit Vehicle Emergency Response Guide and gave it to all Milwaukee county Police and Fire Chiefs on 11-24-08 to disseminate to their staff. Electronic file was shared so each department is able to reproduce more. This guide is a comprehensive twenty page how-to booklet explaining to first responders how to identify the bus shutoff controls, gain access, emergency hatches and windows. A very useful guide when minutes count.	Milwaukee County Transit System	December-09	5.132
3 Advancing the Security Baseline	The HOT CARD Procedure is an instructional business card that list bullet points for employees to be aware of suspicious packages/activities.	Pinellas Suncoast Transit Authority (PSTA) (St. Petersburg, FL)	December-09	2.108
3 Advancing the Security Baseline	CATS employees have been directed to be alert for and to report, through specified means, any situation that appears to be a threat or suspicious activity. These directions are indicated through H.O.T. cards. H.O.T. cards are provided to all employees. These cards establishes procedures for inspecting/sweeping vehicles and stations to identify and manage suspicious items, based on HOT characteristics (hidden, obviously suspicious, not typical) or equivalent. H.O.T Cards provide employees direction to call 704-432-TCPD and also, warnings signs provide information on situational awareness.	Charlotte Area Transit Authority (CATS) (North Carolina)	December-09	11.102
3 Advancing the Security Baseline	HSAS procedure booklets has been provided to all employees as a pocket guide. The pocket guide that is distributed has explanations along with each alert color displaying what actions or change in security should take place in occurrence of alert change.	Hampton Roads Transit (HRT) (Hampton, VA)	December-09	6.101
3 Advancing the Security Baseline	The Los Angeles County Sheriff's Transit Services Bureau has began deploying (since June 2008) its Mobile Search and Screening Teams (MSST) on a random and frequent basis (via LASD's Special Operations Threat Interdiction Unit) to further strengthen rail security, enhance counter-terrorism efforts through visible deterrence and discourage/deter violent criminals from carrying weapons or other dangerous items onto Metrolink and LACMTA trains. According to the Transportation Security Administration, random baggage inspections are an effective security tool for deterring individuals who may pose a threat to passengers on board commuter trains. Since predictable security can be exploited, the screening program is conducted randomly, occurring at various times and at randomly determined stations; measures are part of the continued evolution of LASD-TSB's rail-security programs with Metrolink and LACMTA and were not adopted in response to a new or particular threat.	Los Angeles County Sheriff's Transit Services Bureau	December-09	
3 Advancing the Security Baseline	Terrorism Response Guide: Two-part product addressing security enhancement actions to take in response to heightened threat or security incident. Controlled portion fully describes required and optional activities for implementation based on changes in the Homeland Security Advisory System (HSAS) threat level. Includes an incident response matrix providing direction and guidelines to facilitate emergency coordination with first responders and other supporting agencies. Separate portion employs easily carried and retrieved cards disseminated to BART employees to provide practical guidance detailing response actions, particularly for chemical and biological events. Enables front-line employees to take effective steps to prevent harm or mitigate consequences.	Bay Area Rapid Transit (BART)	June-08	

Relevant TSF(s)	Smart Practice Description from BASE	Agency	Date of Roundtable	BASE Question
3 Advancing the Security Baseline	Quick Reference Guides: GCRTA issues a pocket-size quick reference product entitled *Terrorism Response Guide* to all its personnel, providing guidance on recognition and response to suspicious people, packages, devices and substances. The Guide contains checklists for conducting security sweeps and guidance on responding to bomb threats. To facilitate expanded security activities at heightened readiness levels, the Guide lists the response activities and the protective measures to be implemented at each threat level, including the attack and recovery phases. GCRTA also issues a Terrorism Response Guide for Supervisors that provides greater detail than the guide issued to all personnel and specifies the procedures for implementing Incident Command functions. This product includes details on the procedures for designating representatives for command posts and their responsibilities, employing incident response teams, and conducting communications and emergency notifications.	Greater Cleveland Regional Transit Authority (GCRTA)	June-08	
3 Advancing the Security Baseline	All Hazards Plan Checklist: The Emergency Response plan ("All Hazards Plan") contains a checklist specifying departmental roles and responsibilities for each of 15 most likely or critical hazard scenarios. The scenarios are identified using threat, vulnerability and consequence analyses conducted by subject matter experts in King County Metro. Scenarios encompass a range of threats resulting from intentional acts, natural hazards, and accidents, to include: bomb threats, suspicious packages or substances, explosions in tunnels, tunnel fires, mass evacuation from tunnels, sheltering in tunnels, changes in homeland threat advisory levels, weapons of mass destruction (WMD) threats, natural disasters, pandemic flu, power outages, radio system failures, civil unrest, and other hazards.	King County Metro, (Seattle)	June-08	
3 Advancing the Security Baseline	Threat and Countermeasures Pocket Guide: Provides guidance to transit employees on dealing with different threats and appropriate countermeasures in a convenient pocket-sized booklet. Applies a Federally-funded resource--the National Transit Institute-- for the pocket guide for distribution to employee at no cost. Convenient size enables employees to carry on duty for ready reference to guide actions as circumstances warrant.	Milwaukee Transit	June-08	
3 Advancing the Security Baseline	Emergency Guide: PAAC trains transit police, key operating personnel, and first responders in emergency response involving mass transit vehicles. After the training PAAC System Safety personnel issue a book entitled, "Mass Transit Vehicle Emergency Response Guide." Subjects covered in detail include emergency operations with illustrations on how to operate and disable each vehicle currently within the Port Authority's fleet, both buses and light rail. The information is applicable to the first responders of a terrorist attack. PAAC issues the guide to all first responders along with each supervisor and management personnel. The guides are also maintained in emergency response vehicles. Maintained in a 1/2 inch binder (8 1/2 x 11), the 44-page guide is easily carried and stored for ready access by employees.	Port Authority Allegheny County (PAAC)	June-08	
3 Advancing the Security Baseline	HOT (Hidden, Obvious, Typical) Procedures: Wallet Card for employees to recognize and report incidents. Card reinforces and refreshes training in HOT procedures provided to all employees by concise points detailing how to recognize suspicious packages, unattended items and strangers in the workplace and how to report to TriMet Operations Command Center. Procedures listed for reporting all incidents involving TriMet vehicles, facilities, customers, and employees. Service Emergency Information Line cited for employees to call for information when a TriMet Service Emergency is declared. Wallet cards with reporting instructions to be kept with employees and contracted personnel for HOT procedures.	TriMet Portland	June-08	

Relevant TSF(s)	Smart Practice Description from BASE	Agency	Date of Roundtable	BASE Question
3 Advancing the Security Baseline	Security Committee: Active Security Committee oversees, reviews, and updates plans, processes, and implementation for a broad range of security issues. All offices concerned with leading and managing security are represented on the Committee, enabling an effective, cross-functional review and consensus process. The functions represented include police, emergency preparedness, risk management, maintenance, human resources, project management and public communications. The comprehensive, interoffice review conducted by the Committee is instrumental in making its recommendations effective when the Chief of Police presents them to the Chief Executive Officer of DART.	Dallas Area Rapid Transit (DART)	June-08	
3 Advancing the Security Baseline	Security and Breach Committee: Elevates prevention and response capabilities through proactive engagement. Acts in an advisory capacity to review incidents--both internal and in other systems-- to correct deficiencies and identify areas of concern before they adversely affect security. The Committee, composed of Vice Presidents or their designees from across the agency's operational and staff divisions, determines security implementation actions by considering security data and statistical trends, such as incidents, crime, and enforcement data, published monthly as Metro Police Attacking Crime Trends (MPACT). This approach allows the Committee to be proactive in correcting deficiencies and identify areas of concern before they adversely affect security. The representative process helps ensure that the right functional tasks are performed by the right functional authority within Houston Metro.	Metro Transit of Harris County (Houston, Texas)	June-08	
3 Advancing the Security Baseline	Employee Security Accountability: Security accountability integrated into performance assessments of supervisors and front-line employees. Performance evaluations consider effectiveness in security activities as well as security issues and concerns that are missed. Security accountability is a factor in determining eligibility and recommendations for promotion.	Tren Urbano (San Juan, Puerto Rico)	June-08	
3 Advancing the Security Baseline	Employee and Contractor Background Checks: Conducts in-depth background checks on employees and contractors, including law enforcement officers. DART Police Department conducts checks on new police applicants, dispatchers, and fare enforcement officers. Background checks for new police applicants, conducted through the Hiring and Recruiting Section, are more intensive and recurring with Criminal History checks occurring every 2 years, and Driver's License checks occurring quarterly.	Dallas Area Rapid Transit (DART)	June-08	
3 Advancing the Security Baseline	Employee Background Checks: Comprehensive county, local, and federal record checks of backgrounds of system employees, encompassing review of state driving record, verification of Social Security number, state residency, and ten-year employment and education history.	New Jersey Transit	June-08	
3 Advancing the Security Baseline	Vendor/ Contractor Screening and Credentialing: A Regional Transportation Group, consisting of New Jersey Transit, New York Metropolitan Transportation Authority, Port Authority of New York and New Jersey, and Amtrak, has developed a joint security clearance program whereby background checks for vendor/ contract employees are maintained in a secure database accessible to each agency. Each employee is issued a standardized credential for display while on participating agencies' properties. The credential is visibly color coded to display the level of clearance to confirm that the vendor/ contract employee meets the required level of clearance for the project and/ or area of required access.	New Jersey Transit	June-08	

Relevant TSF(s)	Smart Practice Description from BASE	Agency	Date of Roundtable	BASE Question
3 Advancing the Security Baseline	Operational Security Protocols: Pre-notification and permission requirements for employees entering restricted security zones at underwater tunnels ensure a clear distinction between authorized and unauthorized entries. Security escort provided for all contractors working in critical or sensitive areas. Expansion of capabilities through security force multipliers-- security awareness efforts emphasize vigilance of station agents, cleaning crew, conductors, vehicle operators and track workers as "eyes and ears" for security.	MTA (New York City)	June-08	
3 Advancing the Security Baseline	Secure Cover for Box Girders Supporting Bridge or Overpass Structure: The agency developed and patented locking cover to prevent unauthorized access through manholes into overhead cells or chambers within a concrete overpass or bridge structure. The enclosed cells, typically not constructed to prevent unauthorized access, often contain electrical or communications equipment or conduits. This initiative secures power and communications systems from unauthorized access and tampering.	Santa Clara Valley Transportation Authority (CA)	June-08	
4,1 Counterterrorism Training and Preparedness Exercises	The Washington Metropolitan Area Transit Authority (WMATA) an Emergency Response Training Facility in 2002 for first responders in the National Capital Region (NCR). The training facility includes a 260-foot tunnel, two Metrorail cars positioned to simulate a collision, a third rail, wayside equipment, and tunnel lighting. Theatrical smoke and fire as well as sound effects are used for fire and rescue exercises. Hazmat and terrorism scenario disaster drills are also conducted at the facility. To date, more than 15,000 security and public safety professionals have trained and exercised at the facility, including transit, local, and State police officers; firefighters from seven jurisdictions in the NCR; FBI and Bureau of Alcohol, Tobacco Firearms, and Explosives agents; National Guard Response Units from Maryland, Virginia, and Washington, DC; Pentagon Force Protection Agency (PFPA) officers; and members of the Chemical Biological Incident Response Force (CBIRF). The tunnel is available 24-hours-a-day, seven-days-a-week for training and exercises. The training facility expanded in 2006 to include the nation's first passenger rail emergency evacuation simulator, which can roll a commuter rail car 180 degrees (upside down) in 10-degree increments to simulate railcar positions after derailments or other rail incidents. Metro uses the "rollover rig" to train fire, police, and other first responders on the complications associated with rescuing people from a rail car that has rolled over on its side at varying angles. The Federal Railroad Administration (FRA) uses the emergency evacuation simulator to assist in engineering studies evaluating interior design safety, egress calculations and photo luminescent signage for commuter passenger rail cars.	Washington Metro Area Transit Authority (WMATA)	December-09	5.130
4 Counterterrorism Training and Preparedness Exercises	PACE has developed a transit vehicle familiarization training program for Police and Fire which is provided at no cost to the requesting agencies. Groups of first responders are given a power presentation outlying operational and emergency features of each individual bus model in PACE service. Included is information on critical systems and components, which when damaged or compromised will enable responders to render the vehicle inoperable. The presentations are stored on individual CD'S and given to each agency to be used as a reference and/or stored in command vehicles or response vehicles for emergency reference. Tactical Response Teams from across the six (6) county region have taken advantage of this program.	PACE Bus (Arlington Heights, IL)	December-09	5.123

Relevant TSF(s)	Smart Practice Description from BASE	Agency	Date of Roundtable	BASE Question
4 Counterterrorism Training and Preparedness Exercises	The LASD-TSB (LACMTA) has developed a Deviation Assessment and Response Training (DART) course for LE officers and transit agency employees for the purpose of identifying specific protocols associated with potential terrorist activities, reinforced through physical/behavior baselines which lead to an articulated and well-defined response to deviations. Gleaning from the experience of the FBI's Behavioral Assessment Unit, the DEA, British Transport Police, an Israeli Model and others, DART also provides thorough insight and understanding into the various investigative and interviewing techniques that assist in properly assessing relevant deviations to affect a proper response." Train-the-Trainer opportunities are anticipated.	Los Angeles County Metropolitan Transit Authorith (LACMTA) (Los Angeles, CA)	December-09	
4,3 Counterterrorism Training and Preparedness Exercises	The Virginia Railway Express Emergency Response Guidebook (Crisis Manual) and Emergency Response Guidelines DVD is provided to all local emergency response agencies (ALL EMERGENCY RESPONDERS) and serves as a training tool. This provides ready access material for emergency responders to assist them when responding to emergency events on the VRE.	Virginia Railway Express (VRE)	December-09	4.109
4 Counterterrorism Training and Preparedness Exercises	Specialized Law Enforcement Training: Chicago Police Department Special Function Section personnel (150) are trained and equipped to operate effectively in response to a terrorist threat or incident in the CTA rail system. Targeted training in Terrorism Awareness and Emergency Response as well as orientation to the CTA system through its CTA Rail Safety Class. Specialized equipment includes protective suits for hazardous materials contamination.	Chicago Transit Authority (CTA)	June-08	
4 Counterterrorism Training and Preparedness Exercises	Prevention and Response to Suicide Bombers and WMD: DART Police trained in prevention and response to suicide bombers and weapons of mass destruction attacks. All DART Police officers undergo 8 hours in these critical areas as part of the annual 40-hour training mandated by the State of Texas. The first year of this training is State mandated; the second year is refresher training required by DART. The training is conducted in-house by DART instructors who attended DHS-sponsored train-the-trainer courses at Energetic Materials and Research Training Center (EMERTC) in New Mexico. Training materials and certificates are provided to each class by EMERTC. DHS funds for instructor travel to EMERTC, allowing this capability to be developed without use of transit security grants funds. Course topics include: how to disrupt suicide bombers; recognition of improvised explosives devices (IED); vulnerability assessments and countermeasures; post blast response; information management for indications and warnings; legal issues in use of deadly force; and case studies of past incidents.	Dallas Area Rapid Transit (DART)	June-08	

Relevant TSF(s)	Smart Practice Description from BASE	Agency	Date of Roundtable	BASE Question
4 Counterterrorism Training and Preparedness Exercises	Comprehensive Anti-Terrorism Training and Readiness: Both internally and with its security and emergency response partners, MTA has built a network of capabilities for terrorism prevention and response actions. MTA front-line employees are provided training in key areas to bolster security capabilities through vigilant "eyes and ears" throughout the system. Subject areas include security awareness training to identify and report suspicious behavior, activities, and items. Roles and responsibilities in emergency management, including crisis communications. Behavior awareness and recognition through the Terrorist Activity Recognition & Reaction (TARR) Course. Selected employees are trained in emergency response to HAZMAT incidents, enhancing the capability to mitigate the consequence of such an event. MTA provides NYPD Transit Bureau officers with targeted safety training to ensure effective operations in the challenges presented to operations in the subway system. NYPD units provide MTA with specialized capabilities to ensure readiness to respond to threat and incidents, including bomb squads, counter-terrorism units, canines, explosives detection, response to weapons of mass destruction threats and incidents, and hand-help radiological detection pagers. As part of the integrated support to MTA to address threats and incidents involving explosives and dispersal of hazardous materials, NYPD officers have received specialized training in Chemical, Ordinance, Biological, Radiological Weapons of Mass Destruction (COBRA/WMD) response, a multi-day program that prepares responders to enter contaminated areas, conduct rescue operations, mitigate spread and impact, and manage the incident. These officers are equipped with level 3 HAZMAT suits and respirators to provide the necessary protection to operate in a contaminated environment. MTA and supporting emergency response agencies have established joint procedures for responding to explosives devices, and chemical, biologieal and radiological releases in the subways system.	MTA (New York City)	June-08	
4 Counterterrorism Training and Preparedness Exercises	NIMS Training: Ensure understanding and execution of National Incident Management System protocol through comprehensive training program. All Operations Center personnel trained in National Incident Management System (NIMS). All Supervisors and Deputies complete basic NIMS course on-line. Front-line employees receive annual training in security awareness and behavior recognition, with "Terrorist Recognition", "Warning Signs", and "The Mark" videos employed as training aids.	Orange County Transportation Authority	June-08	
4 Counterterrorism Training and Preparedness Exercises	Focused First Responder Training: Familiarization training program for law enforcement, firefighters, and regional responders regarding critical operational and emergency features on buses.	PACE Bus (Chicago)	June-08	
4 Counterterrorism Training and Preparedness Exercises	Comprehensive Security Training: 100% of employees, including front-line staff and contract personnel, cleaning and construction crews, and other employees, are trained in security awareness. This training is conducted annually for operations personnel, and every two to three years for support personnel and contractors. All new employees are trained in security awareness and provided a book titled "System Security Awareness for PATH Employees." This pocket-sized reference booklet provides guidance on multiple topics, such as identification and reporting suspicious activities. Focused Tunnel and Underground Station security training program for supervisors, managers, selected front-line employees , and local police, fire and emergency medical service personnel from New York City and New Jersey. As of the end of fiscal year 2007, more than 26 agencies had participated in this program, providing training to over 700 first responders. Employs "red letter exercises" that present security and emergency response scenarios to employees throughout the organization selected randomly to test their awareness, access training effectiveness, and reinforce critical skills.	PATH	June-08	

Relevant TSF(s)	Smart Practice Description from BASE	Agency	Date of Roundtable	BASE Question
4 Counterterrorism Training and Preparedness Exercises	Emergency Response Training: 200 Transit Authority employees trained in disaster relief to provide support to employees. Fire/Life Safety Program (all hazards) trains area fire and police for a coordinated response to light rail emergencies. Training includes classroom as well as hands-on with Transit Authority equipment. Conducted emergency response exercise with San Jose Fire Department in the system's 900 foot tunnel, focusing on communications and response in environment obscured by simulated smoke.	Santa Clara Valley Transportation Authority (CA)	June-08	
4 Counterterrorism Training and Preparedness Exercises	Managing Metro Emergencies: Awareness and capabilities enhancement training course designed to prepare National Capital Region first responders to manage effectively emergencies situations in the WMATA metro rail system. Participants include Federal agencies; area law enforcement departments; fire and rescue services; Department of Transportation officials from Washington, DC, Maryland, and Virginia; and Metro operations personnel-- who are likely to take action during a Metro emergency. The Managing Metro Emergencies training focuses on five tactical priorities. **M**itigation- *evaluation, scene safety, NIMS, incident command, triage, fire suppression*. **E**vacuation- *trains, tunnels, stations, and buses.* ***T****ransportation of evacuated- rescue trains and strategic buses*. **R**ecovery (local)- *single tracking, bus bridges, critical incident messaging, media management*. **O**verall system recovery- *returning system to normal operation*. Managing Metro Emergencies Reference Guide issued to all participants in the program. This product outlines and summarizes practices and procedures covered in the training course, reinforcing learning and providing a ready resource to facilitate effective actions in emergency situations. Reference Guide includes information on emergency evacuation procedures, chemical detection, basic information on explosives blast ranges, locations of emergency intercoms, ETS phone locations, emergency features in railcars, practices and procedures while conducting traffic control during emergencies, safety features on the right-of-way and tunnels.	Washington Metro Area Transit Authority (WMATA)	June-08	
5,3 Technology Applications to Mitigate High Consequence Risks	CENTRO's mail room has an isolated air system. In an emergency the mail room personnel can isolate the room automatically. Doors and louvers will automatically close, the room becomes totally isolated from the rest of the facility.	Central New York Regional Transportation Authority (CENTRO)	December-09	12.115
5 Technology Applications to Mitigate High Consequence Risks	Pierce Transit utilizes a very comprehensive reporting system, designed by a software contractor, which they describe with the acronym ODDS. (Operational Decision Data System). This appears to be a very useful tool for multiple applications within the entire system. This ODDS report format records every incident, comment, complaint and report that comes into Pierce Transit, whether in house or from outside entities. The system has the capability to cross reference and sort data by a variety of criteria, with pre-set parameters which will automatically "flag" significant items for closer review. All security incidents would be automatically included within the format, and have the pre-set conditions which alert the Public Safety department to review for further action. This system thereby allows managers to investigate incidents by categories, i.e. complaints against a specific operator; incidents occurring on any individual route, chronic public complainers, crimes on the system, etc. From the examples demonstrated to the Inspectors, this system, or a system with the same capabilities would be an extremely valuable tool to a transit system, regardless of size.	Pierce Transit (Tacoma, WA)	December-09	11.101
5 Technology Applications to Mitigate High Consequence Risks	Silent Alarms with Global Positioning System (GPS): Bus drivers can activate silent alarms, which send a GPS alert to Operations Control Center pinpointing the location and direction of travel of the bus for enhanced response by local law enforcement.	Alameda-Contra Costa Transit	June-08	

Relevant TSF(s)	Smart Practice Description from BASE	Agency	Date of Roundtable	BASE Question
5 Technology Applications to Mitigate High Consequence Risks	GCRTA has implemented a comprehensive, integrated electronic security system which interconnects CCTV cameras and access control with the central alarm and intrusion detection system. This capability enhances GCRTA's capability to pre-assess incidents prior to on-scene response. The system documents events with video images, audio recording of emergency communications and access cardholder details, expediting post-incident investigations. Overall, this integrated system complements and provides valuable support to GCRTA transit police and dispatchers.	Greater Cleveland Regional Transit Authority (GCRTA)	June-08	
5 Technology Applications to Mitigate High Consequence Risks	MetroNet Security System: Integrated security system to enhance detection, prevention, and response capabilities for the Transit Center and 26 Metro Transit Park & Ride locations. Video surveillance coverage of platforms and parking areas include a central monitoring of live camera feed through TranStar security console, an alarm activated system which reduces monitoring fatigue and staffing requirements, and 24/7 recording capability providing improved investigative capability. TranStar Security Console affords multi-faceted capabilities to view live camera feeds at numerous locations throughout the system, assess a developing situation or incident, and implement effective preventative or responsive actions. TranStar Security Console staffed by dedicated Watch Command Officer (WCO). Alert triggered monitoring system-- live feeds displayed on multiple video monitors. WCO remotely controls camera to view activity and assess situation to determine if alert is actionable. If actionable, WCO coordinates dispatch of patrol officers. WCO able to control remotely entrance and exit gates to Park & Ride locations. WCO communicates with passengers generally through the "Talk Master" Public Address System and with individual passengers via the Emergency Assistance Stations installed at Transit Center and Park & Ride locations. 24/7 recording capability enables periodic review of file footage to determine the need for security enhancement actions in particular locations and provides evidence of incidents to facilitate subsequent investigative actions.	Metro Transit of Harris County (Houston, Texas)	June-08	

Relevant TSF(s)	Smart Practice Description from BASE	Agency	Date of Roundtable	BASE Question
5 Technology Applications to Mitigate High Consequence Risks	Intelligent Video Surveillance: Installed state-of-the-art surveillance system employing CCTV with intelligent software to expand capabilities to detect suspicious persons, activities, and items and thereby prevent terrorism and reduce crime. System developed in the United Kingdom for security surveillance of rail facilities. Marks one of the first operational systems in the United States that builds on the techniques and procedures developed in Europe and elsewhere to detect indicators of potential terrorist activity and deter attacks, with accompanying crime prevention impact. Through a series of phases, all MTA transit properties will eventually be outfitted with the new system. The key to this system is the integration of the closed circuit digital security cameras, intrusion detection alarms, and the computer software package. The software enables the camera systems to identify anomalous behaviors, activities, and items, such as the presence of an unattended package, and alert law enforcement officers in the operations center by placing it on a main screen that displays the image as a priority. MTA Police then assess the anomaly and respond. Additionally, as available intelligence or suspect information allows, the software enables the camera system to search for person(s) of interest based on a physical description. The images and alarms are recorded and archived for further review as the particular situation warrants. MTA's new Police Monitoring Facility provides remote monitoring of camera feeds and alarms. Integrated with the agency's MTA's Police Communications Center, this capability facilitates the prompt detection of and response to illegal intrusions or other criminal activity. This enhanced capability compliments the existing portal security system, which employs infrared zone alarms, and represents an effective application of technologies as security force multipliers in the protection of critical infrastructure. Additionally, these technologies allow for integration with other local, state, and federal surveillance systems and mobile command vehicles to build networked capabilities for detection and deterrence and provide a source of forensic data to advance investigatory activities should an incident occur.	Maryland Transit Administration (MTA)	June-08	
5 Technology Applications to Mitigate High Consequence Risks	Enhanced Storage Yard Security: Enhanced rail and bus yard security technology includes laser intrusion detection with pan-tilt-zoom (PTZ) video and still cameras.	MBTA (Boston)	June-08	
5 Technology Applications to Mitigate High Consequence Risks	NORTA buses and street cars outfitted with multiple capabilities to enhance security and support emergency response. Wireless, internet capable CCTV cameras that can be viewed remotely, with audio, by dispatchers, police, Operations Centers; DVR recording capability, interoperable with other digital surveillance equipment; silent alarms triggered by driver; remotely operated engine kill switches; and automatic vehicle locator systems.	New Orleans Regional Transit Authority (NORTA)	June-08	
5 Technology Applications to Mitigate High Consequence Risks	Integrated Technological Systems for Protection of Critical Infrastructure: Extensive security measures employed to protect the underwater tunnel security measures are employed, including CCTV surveillance systems with both real-time monitoring and recording of observations for later retrieval, as necessary; laser intrusion detection systems; photo-luminescent signage to guide evacuation of passengers, of particular importance in the event of a power failure in the system; emergency exits that are equipped with monitoring alarms to provide immediate alert when exits used; emergency exits protected against use for unauthorized intrusion into tunnels by locking mechanisms and stringent physical security of access devices. For enhanced security of stations, yards, depots, and buses (on a trial basis), CCTV installed with ongoing integration in MTA's Electronic Security System. Intrusion alarms and access controls installed in critical facilities, emergency exits, and signal rooms.	MTA (New York City)	June-08	

Relevant TSF(s)	Smart Practice Description from BASE	Agency	Date of Roundtable	BASE Question
5 Technology Applications to Mitigate High Consequence Risks	Protection of Underwater Tunnels: Protective technologies installed at all access portals to tunnel infrastructure, integrating laser intrusion detection systems, remote alarms, and surveillance systems employing smart camera technology. PATH buttresses these protective systems with focused training and operational activities, including randomly employed law enforcement and canine team patrols and a specialized tunnel and underground station security training program for supervisors, managers, selected front line employees, and local police, fire and emergency medical service personnel from New York City and New Jersey.	PATH	June-08	
5 Technology Applications to Mitigate High Consequence Risks	Enhanced Video Surveillance: Upgraded camera infrastructure at San Ysidro station (international border), employing smart video technology, exception-based monitoring, and alert notification to trigger security response.	San Diego Trolley	June-08	
5 Technology Applications to Mitigate High Consequence Risks	Vehicle Locator and Access Control: Automated Vehicle Locator (AVL) on all buses enables dispatchers to monitor buses. CCTV surveillance of transit facilities, parking lots and access/egress points. Funded to install wireless digital CCTV on buses. Access control strictly enforced (visitor badges with ID#s and logs, escorts, proximity cards used and monitored by computer).	VIA Transit (San Antonio, Texas)	June-08	
5 Technology Applications to Mitigate High Consequence Risks	Chemical/Biological Early Warning Crisis Management System: Enhances capabilities to detect and mitigate the consequences of chemical agent releases in the Metro rail system. The system's architecture integrates security technologies with operational preparedness activities to bolster capabilities to address a most challenging threat, particularly in underground infrastructure. Technological applications include chemical detection systems for early warning, CCTV cameras for real-time monitoring throughout the system, agent dispersion modeling to facilitate predictive analysis of likely flows and at risk areas, command and control hardware and software to guide timely and effective actions to address a threat or incident, and overall system networking to integrate multiple capabilities into unified effort. Operational components include development and implementation of coordinated optimal response protocols and targeted training and emergency preparedness exercises for first responders and WMATA operations control center (OCC) personnel.	Washington Metro Area Transit Authority (WMATA)	June-08	
6 Public Awareness and Preparedness Campaigns	Conducts extensive public awareness campaign employing multiple media (issue pamphlets, signs, placards, announcements) to inform customers on how to recognize and report suspicious behavior or items to DART Police and employees. Multi-media approach employing a range of messages keeps material fresh. Reporting instructions easily understood and remembered to enable timely action on observations that prompt concern. DART participates in two key community action programs that enhance public awareness and safety and security in the transit system: Operation Lifesaver and the National Night Out. Operation Lifesaver is a cooperatively funded non-profit public education program to promote safety at railroad grade crossings, and on railroad right-of-ways. National Night Out is a police-community partnership to raise awareness and reduce neighborhood crime.	Dallas Area Rapid Transit (DART)	June-08	

Relevant TSF(s)	Smart Practice Description from BASE	Agency	Date of Roundtable	BASE Question
6 Public Awareness and Preparedness Campaigns	Tapping a unique resource, JTA displays posters prominently at their main facility, on buses, and the skyway system to promote public and employee security awareness. JTA secured the two types of posters at no cost through the United States Computer Emergency Readiness Team (US-CERT) to enhance security awareness of the public and employees. The poster promoting awareness of physical security at facilities can be accessed at http://www.us-cert.gov/reading_room/poster_3.pdf. The poster for guidance on recognizing and reporting suspicious behavior can be accessed at http://www.us-cert.gov/reading_room/poster_4.pdf. The complete collection of distributable materials may be accessed at http://www.us-cert.gov/reading_room/distributable.html#work. US-CERT provides a range of materials pertaining to cyber-security awareness and prevention. For more information, please access http://www.us-cert.gov/reading_room/.	Jacksonville Transportation Authority (JTA)	June-08	
6 Public Awareness and Preparedness Campaigns	Two bus operators are detailed for 6 months on a public education program to make presentations to schools, community and civic groups, and private companies regarding safety and security practices for riders. This focused outreach and community engagement includes public awareness for terrorism prevention ("See Something, Say Something" campaign) and guidance on evacuations and actions to take in emergencies.	King County Metro, (Seattle)	June-08	
6 Public Awareness and Preparedness Campaigns	Multi-faceted adaptation of the Transit Watch Program: The MBTA has implemented a series of initiatives to supplement and enhance the effectiveness of materials provided by FTA and TSA under the Transit Watch Program. MBTA specifically adapts the materials to its ridership, produces public awareness in English, Spanish, Chinese, and Haitian. MBTA senior leadership, along with elected officials such as the Governor of Massachusetts, and the Mayor of Boston, participate in periodic events to promote terrorism awareness among the public on MBTA's systems. The MBTA Media Department has developed a program of regular renewal of public awareness signage and message boards to update the materials and keep the security message fresh.	MBTA (Boston)	June-08	
6 Public Awareness and Preparedness Campaigns	Multi-jurisdictional, integrated public security awareness campaigns sponsored by Miami-Dade Transit are held at multiple stations in the transit system on quarterly basis. These public outreach efforts bring together security officials and employees of Miami-Dade Transit, TSA inspectors, representatives from Miami-Dade Police Department, and the City of Miami Police in a joint campaign to inform passengers on security awareness, the importance of their vigilance, and the security enhancement role they can play through prompt reporting of suspicious activities and items and other security concerns. Participants in the campaign reinforce the message by disseminating Transit Watch public security awareness materials to passengers.	Miami-Dade Transit	June-08	
6 Public Awareness and Preparedness Campaigns	New York MTA Office of Safety & Security and NYPD Interagency Counterterrorism Task Force implemented comprehensive awareness program called "Transit Watch" "If You See Something, Say Something"; directed to both MTA employees and the riding public. Program disseminates public awareness messages through multiple media. Toll-free telephone numbers provided to encourage timely reporting of suspicious persons, activities, and items. Approach enables rapid response and tracking of security reports for trend and pattern analysis. Program recently expanded to broadcast television in the New York metropolitan area.	New York Metropolitan Transportation Authority (MTA)	June-08	

Relevant TSF(s)	Smart Practice Description from BASE	Agency	Date of Roundtable	BASE Question
6 Public Awareness and Preparedness Campaigns	Metro Citizens Corps: Public preparedness program that enhances security awareness and vigilance among selected riders in Metro trains. Participants are selected from a working list of Citizen Emergency Response Team (CERT)-certified members from jurisdiction neighboring the WMATA system. These jurisdictions include Arlington County, Fairfax County, and Alexandria City, Virginia; Montgomery County and Prince George's County, Maryland; and the District of Columbia. The Metro Citizens Corps (MCC) training course consists of three modules. Module I- Program Orientation/ Metrorail Familiarization/ Tunnel: --Common terminology used by Metro and the mass transit industry. Emergency procedures and resources of the Metro. Awareness fo the hazards of the Metro tunnel system environment. Activities to build confidence to operate safely (when necessary) within the tunnel system despite the hazards. Module II- Passenger Train Familiarization: -- Features of Metro trains and the resources found within them. Emergency Metro train evacuation procedures. Activities to build confidence to assist Metro employees should emergency evacuation be necessary. Module III- Terrorist Activity Recognition and Reaction (TARR): -- Overview of goals, thought processes, and tactics of terrorists. Tools to recognize the indicators of terrorist activity prior to and/or during a terrorist incident. Reaction to a terrorist threat/ incident within the parameters of training, authority, and regard for personal safety. Imagery and nature of terrorist attacks and their aftermath in order to prepare for the sensory effects produced in these incidents. Due to the physically challenging tunnel and rail yard environments MCC participants are required to submit fitness waivers as a condition of enrollment and participation in the program.	Washington Metro Area Transit Authority (WMATA)	June-08	

XII. Appendix K: Assessments

TSA has conducted several assessments on passenger rail systems and critical assets at the national and regional levels.

National Assessments
In 2007, Congress required TSA to produce a report which provided a comprehensive view and comparative analysis of terrorist risk involving five modes of transportation: aviation, freight rail, highway, mass transit, and pipeline.

In response to this requirement, TSA developed the TSSRA, a report designed to inform the development and maintenance of risk mitigation strategies and actions that include, but are not limited to, security standards, grants, programs, countermeasures, and resource allocations. It provides a cross-modal analysis as well as individual analyses focused on the unique risks in each transportation mode. TSA delivered that report to Congress in June 2010.

Mass Transit / Passenger Rail Security Risk[4]
Key findings:

(b)(3):49 U.S.C. § 114(r)

Findings of the Risk Assessment
The passenger rail system remains an attractive terrorist target because of its inherent vulnerabilities due to the system's open "architecture" and large volume of riders.

[4] The findings in this section are specific and unique to the mass transit/passenger rail mode. For more information on current threats to the mass transit/passenger rail mode, please refer to TSA's Mass Transit Threat Assessment, DHS Office of Intelligence and Analysis's "Threat Assessment: Mass Transit and Passenger Railroads," and TSA's assessment on Train Station Attack Methods.

(b)(3):49 U.S.C. § 114(r)

Table 2: Attack Families with Passenger Rail Emphasis

Alternative Views

This assessment provides two alternative views of the risk data: (1) Direct Consequence-Based Risk, applying only direct consequence (the cost of casualties and direct damage) to threat and vulnerability; and (2) Conditional Risk, using vulnerability and total consequences to account for the uncertainty associated with any specific threat.

The following table is a comparison of the top five mass transit attack families from three risk views. These attack families are inclusive of passenger rail scenarios. The Direct Consequence-Based Risk view introduces (b)(3):49 U.S.C. § 114(r)

(b)(3):49 U.S.C. § 114(r)

[8] Threat values range from a low of 0.0 to a high of 0.0357.

(b)(3):49 U.S.C. § 114(r)

Table 3: Alternate View Comparison by Mass Transit Attack Family (includes Passenger Rail)

Mass Transit/Passenger Rail Conclusions

This report reflects a snapshot of risk as of November 2009. As our adversaries' intent and capabilities shift, and as vulnerabilities are addressed, the risk will evolve.

(b)(3):49 U.S.C. § 114(r)

System Assessments

Under the BASE program, TSA has conducted 111 assessments. TSA, in coordination with transit agencies, has completed the assessments in 51 of the largest 55 systems by daily ridership; 42 assessments among agencies ranked 55-100 in size; and 18 assessments on smaller agencies. Of BASE's 17 focus areas, TSA views 6 action items as critical. Focusing on the largest systems, the results were as follows:

(b)(3):49 U.S.C. § 114(r)

Critical Asset Assessments

At an asset level, TSA worked with industry and Government partners to identify 62 assets (30 tunnels, 30 stations, and 2 bridges) as critical to mass transit and passenger rail on a national level. These assets are located in 7 regions:

(b)(3):49 U.S.C. § 114(r)

12 entities own these assets:

(b)(3):49 U.S.C. § 114(r)

(b)(3):49 U.S.C. § 114(r)

SAIC,, operating under a grant from the Office of Domestic Preparedness (now part of the Federal Emergency Management Agency), conducted a risk and needs assessment for each of these assets in FY 2005. These assessments made recommendations for both countermeasures and response capabilities for each asset and agencies developed strategies to address these needs. Some of the asset owners are in the process of completing or planning a second round of needs assessments.

DHS's Science and Technology Directorate, at the request of TSA, contracted with Lawrence Livermore National Laboratories to perform a blast assessment on all 30 underwater tunnels in FY 2006-2008, (b)(3):49 U.S.C. § 114(r)

(b)(3):49 U.S.C. § 114(r)

Regional Assessments

TSA has also examined risk on a regional basis for mass transit, as shown in the chart on the next page. (b)(3):49 U.S.C. § 114(r)

(b)(3):49 U.S.C. § 114(r)

[9] Unlinked Passenger Trips counts each car boarding as a separate trip regardless of the number of transfers.

(b)(3):49 U.S.C. § 114(r)

(b)(3):49 U.S.C. § 114(r)

These grants support activities such as front-line employee training, canine teams, anti-terrorism teams, mobile screening packages, intelligence support, exercises, public awareness campaigns, and tunnel hardening.

Air Cargo Screening Statistics

Fiscal Year 2011 Report to Congress
First Quarter
August 1, 2011

Homeland Security

Transportation Security Administration

Message from the Administrator

August 1, 2011

I am pleased to present the following report, "Air Cargo Screening Statistics" for the first quarter of Fiscal Year (FY) 2011, as prepared by the Transportation Security Administration (TSA).

This report was compiled pursuant to Section 1101 of the *Fiscal Year* (FY) *2011 Full-Year Continuing Appropriations Act* (P.L. 112-10), which appropriated funds for FY 2011 under the authority and conditions provided in the *FY 2010 Department of Homeland Security* (DHS) *Appropriations Act* (P.L. 111-83). Section 514 of P.L. 111-83 requires TSA to submit air cargo screening statistics to Congress every quarter. This report includes the amount of cargo that each passenger air carrier screened at each airport. Statistics included in this report are derived from data that air carriers reported during October, November, and December 2010.

Section 1602 of the *Implementing Recommendations of the 9/11 Commission Act of 2007* (P.L.110-53), codified at 49 U.S.C. § 44901(g), mandated that 50 percent of cargo transported on passenger aircraft be screened not later than February 3, 2009, and that 100 percent of cargo transported on passenger aircraft be screened not later than August 3, 2010. TSA is pleased to report that the 100-percent screening mandate has been achieved with respect to cargo transported on flights of passenger aircraft originating within the United States. Although TSA is continuing to work toward meeting the 100-percent screening mandate for international inbound cargo, this has not yet been fully achieved because of the unique challenges posed in such circumstances.

Pursuant to congressional requirements, this report is being provided to the following Members of Congress:

The Honorable Robert B. Aderholt
Chairman, House Appropriations Subcommittee on Homeland Security

The Honorable David E. Price
Ranking Member, House Appropriations Subcommittee on Homeland Security

The Honorable Mary L. Landrieu
Chairman, Senate Appropriations Subcommittee on Homeland Security

The Honorable Daniel Coats
Ranking Member, Senate Appropriations Subcommittee on Homeland Security

Inquiries relating to this report may be directed to me at (571) 227-(b)(6) or to the Department's Deputy Chief Financial Officer, Peggy Sherry, at (b)(6)

Sincerely yours,

John S. Pistole
Administrator

Executive Summary

This document constitutes TSA's submission of the congressional requirement for air cargo screening statistics for the first quarter of FY 2011 as required in the *FY 2011 Full-Year Continuing Appropriations Act* (P.L. 112-10).

The First Quarter FY 2011 air cargo screening report includes a variety of statistics that identify the volume of air cargo accepted and screened, as reported by passenger air carriers. Specifically, the report summarizes the following information:

1) Air cargo screening statistics from regulated domestic and foreign air carriers. This information encompasses all data, figures, and diagrams for the months of October, November, and December 2010. Specifically, the data cover cargo uplifted on passenger flights originating within the United States and its territories and cargo uplifted on international inbound passenger flights originating outside the United States. The total percentage of cargo screened on flights of passenger aircraft originating within the United States during this reporting period is 100 percent by weight and 100 percent by Master Air Way Bill (MAWB).[1] According to data submitted by air carriers, the total screening percentage of cargo transported on flights of passenger aircraft arriving into the United States from international locations during this reporting period is 86 percent by weight.

2) Alternate security measures are applied to cargo shipments that may be damaged or compromised if TSA's customary screening methods are employed. These types of cargo shipments may include but are not limited to the following: human remains, medical shipments, live animals, diplomatic pouches, etc. Cargo subject to alternate security measures is "screened" within the definition of screening in the *Implementating Recommendations of the 9/11 Commission Act of 2007* (44901(g)(5)) and counts toward the 100-percent mandate. TSA allows cargo handled by way of alternate security measures to be accepted for transport on a passenger or all cargo aircraft. For cargo uplifted on flights of passenger aircraft originating in the United States and its territories, the total volume of cargo screened includes cargo screened using approved screening measures, as well as cargo handled by way of alternate security measures.

3) Air cargo screening statistics linked to Indirect Air Carriers (IAC), shippers, and other entities certified by TSA to screen cargo for uplift on domestic passenger flights. These Certified Cargo Screening Facilities (CCSF) report cargo screening data to TSA pursuant to their program requirements. During this period, 537 CCSF-IACs were

[1] Calculations of reported data show that 99.9 percent of the cargo shipments (MAWBs) and weight were screened in October, November, and December 2010. TSA is addressing the less than . percent rate of non-compliance.

required to screen. The total weight of shipments uplifted on flights originating within the United States/Territories screened by CCSF-IACs was 386,977,730 pounds, while the total number of MAWBs of shipments uplifted on flights originating within the United States/Territories screened during this period was 267,326.

4) During this reporting period, TSA collected data from air carriers during the months of October, November, and December 2010. These statistics indicate that 716,380,464 pounds of air cargo entered the United States aboard passenger aircraft and indicated that 619,407,922 pounds or 86 percent of total cargo were screened before uplift from a last point of departure (LPD) into the United States.

Air Cargo Screening Statistics
First Quarter Fiscal Year 2011

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I. Legislative Language

TSA submits the Air Cargo Screening Statistics report for the first quarter of FY 2011 pursuant to Section 1101(a)(3) of the *FY 2011 Full-Year Continuing Appropriations Act* (P.L. 112-10), which continued in effect the reporting requirement of the *FY 2010 DHS Appropriations Act* (P.L 111-83), Section 514(b):

> Not later than 45 days after the end of each quarter, the Assistant Secretary shall submit to the Committees on Appropriations of the Senate and the House of Representatives a report on air cargo inspection statistics by airport and air carrier detailing the incremental progress being made to meet the requirement of section 44901(g)(2)(B) of title 49, United States Code.

II. Background

The *FY 2010 DHS Appropriations Act* (P.L. 111-83), Section 514(b) requires TSA to report quarterly to the Committees on Appropriations of the Senate and the House of Representatives "on air cargo inspection statistics by airport and air carrier detailing the incremental progress being made to meet the requirement of section 44901(g)(2)(B) of title 49, United States Code." The reporting requirement is continued by operation of Section 1101(a)(3) of P.L. 112-10.

To implement this congressional mandate, TSA updated the air carrier security programs to require air carriers to submit cargo statistics monthly for TSA's report to Congress. Other measures implemented by TSA through its regulatory authorities to meet the 100-percent screening requirement for cargo transported on passenger aircraft mandated by the *Implementing Recommendations of the 9/11 Commission Act of 2007* (P.L.110-53) included the requirement to screen 100 percent of cargo loaded on passenger aircraft at smaller commercial Category II–IV airports throughout the United States. TSA also mandated 100-percent screening of cargo identified as elevated risk within the U.S. air cargo supply chain and required that sensitive cargo be subject to alternate security measures. In October 2008, TSA mandated the screening of 100 percent of cargo placed on narrow body aircraft departing any commercial airport within the United States and its territories.

In May 2010, TSA increased the required screening percentages for cargo transported on flights of passenger aircraft departing to the United States from international locations and required air carriers to report total inbound weight uplifted and weight screened. The increased screening requirements now include: 100 percent on narrow body, 100 percent of all loose shipments (those not tendered on skids), and 15 percent of shipments configured on skids, per flight.

On August 1, 2010, TSA required air carriers to ensure that 100 percent of cargo is screened before uplift on any passenger aircraft flight originating within the United States.

III. TSA Air Cargo Screening Statistics Report

A. First Quarter FY 2011 Screening Summary

Pursuant to the reporting requirement set forth in P.L. 112-10, TSA hereby submits air cargo screening data for the first quarter of FY 2011. Air carrier data submitted for October, November, and December 2010 show that 100 percent of cargo transported on flights of passenger aircraft originating within the United States is screened in accordance with the *Implementing Recommendations of the 9/11 Commission Act of 2007* (P.L. 110-53).[1]

Cargo Uplifted on Flights Originating Within the United States and Territories[2]

Month	Pct. MAWB Screened	Pct. Weight Screened (lbs)
October 2010[1]	100%	100%
November 2010[1]	100%	100%
December 2010[1]	100%	100%
Q1 FY 2011 Total	100%	100%
Q4 FY 2010 Total	98%	94%

Cargo Uplifted on Inbound Flights Originating Outside the United States and Territories

Month	Weight Uplifted (lbs)	Weight Screened (lbs)[2]	Pct. Weight Screened (lbs)
October 2010	254,347,740	221,198,648	87%
November 2010	234,656,477	204,060,463	87%
December 2010	227,376,247	194,148,811	85%
Q1 FY 2011 Total	716,380,464	619,407,922	86%
Q4 FY 2010 Total	649,906,241	550,030,607	85%

[1] Calculations of reported data show that 99. percent of the cargo shipments (MAWB) and weight were screened in October, November, and December 2010. TSA is addressing the less than 0. -percent rate of non-compliance.

[2] The amount of cargo screened includes sensitive cargo subject to Alternate Security Measures.

B. Domestic Air Carrier Statistics – All Airports[3]

Air carriers operating domestically reported cargo screening data to TSA pursuant to their security programs. An analysis of data from October, November, and December 2010 shows that 100 percent of cargo transported on flights of passenger aircraft originating within the United States is screened in accordance with the *Implementing Recommendations of the 9/11 Commission Act of 2007* (P.L. 110-53). A summary of these statistics follows.

Cargo Uplifted on Flights Originating Within the United States and Territories[4]

Month	No. of MAWB Uplifted	Weight Uplifted (lbs)	No. of MAWB Screened[5]	Weight Screened (lbs)
October 2010	469,799	293,425,529	469,708	293,219,403
November 2010	426,227	261,217,413	426,189	261,131,633
December 2010	439,559	278,745,163	439,467	278,620,868
Q1 FY 2011 Total	1,335,585	833,388,105	1,335,364	832,971,904
Q4 FY 2010 Total	1,350,870	816,563,961	1,324,548	769,617,365
Q1 FY2011 Total **100 percent of MAWB screened** **100 percent of weight screened**				

[3] The difference between the reported number of MAWB uplifted and MAWBs screened is the rate of non-compliance, which is less than 0. percent. TSA is addressing this non-compliance.

[4] These data include screening as reported from Category X, I, II, III, and IV airports.

[5] Cargo screened includes sensitive cargo subject to Alternate Security Measures.

Cargo Screening Distribution for October, November, and December 2010

(b)(3):49 U.S.C. § 114(r)

C. Domestic Certified Cargo Screening Program

IACs, shippers, and other entities screening cargo for uplift on domestic passenger flights as CCSFs also reported cargo screening data to TSA pursuant to their program/order requirements. A summary of this data follows. These numbers are included in cargo data reported by air carriers.

CCSF-IAC Shipments Uplifted on Flights Originating Within the United States and Territories

Month	No. of IACs Required to Screen[6]	No. of MAWB Screened	Weight Screened (lbs)
October 2010	501	89,444	127,320,285
November 2010	520	89,173	129,996,311
December 2010	537	88,709	129,661,134
Q1 FY 2011 Total	537	267,326	386,977,730
Q4 FY 2010 Total[7]	448	254,854	375,872,325

CCSF (Non-IAC) Shipments Uplifted on Flights Originating Within the United States and Territories

Month	No. of Non-IAC Required to Screen[8]	No. of House Air Way Bills Screened	Weight Screened (lbs)
October 2010	439	113,671	25,764,152
November 2010	502	146,523	25,329,444
December 2010	545	228,012	30,053,569
Q1 FY 2011 Total	545	488,206	81,147,165
Q4 FY 2010 Total	339	355,092	61,375,563

[6] IACs must screen 90 days after certification. The data collected for the *No. of CCSF IACs Required to Screen* in this table are for each CCSF facility. Under this column, the figure represented at *Q1 FY 2011 Total* is a cumulative total of the number of IACs that are required to screen cargo at the end of the quarter; whereas, the figures associated with October, November, and December 2010 represent a running total of the number of IACs that are required to screen cargo as of that month.

[7] Numbers of MAWB Screened and Weight Screened do not match Q4 FY 2010 report because the numbers were updated after an internal audit.

[8] Non-IAC CCSFs must screen 90 days after certification. The data collected for the *number of CCSFs (Non-IACs) Required to Screen* in this table is for each CCSF facility. Under this column, the figure represented at *Q1 FY 2011 Total* is a cumulative total of the number of CCSFs (Non-IACs) that are required to screen cargo at the end of the quarter; whereas, the figures associated with October, November, and December 2010 represent a running total of the number of CCSFs (Non-IACs) that are required to screen cargo as of that month.

D. International LPD Screened Cargo

Effective May 1, 2010, both domestic and foreign air carriers operating in international locations with an LPD flight into the United States must report cargo screening data to TSA pursuant to their security programs. Accordingly, air carriers submitted data for October, November, and December 2010.

These statistics indicate that 716,380,464 pounds of air cargo entered the United States aboard passenger aircraft and that 619,407,922 pounds or 86 percent of total cargo were screened before uplift from an LPD into the United States. However, in subsequent discussions with industry, it became apparent that all carriers may not have been including transfer cargo or mail in their reports. TSA is working witb industry to clarify reporting requirements.

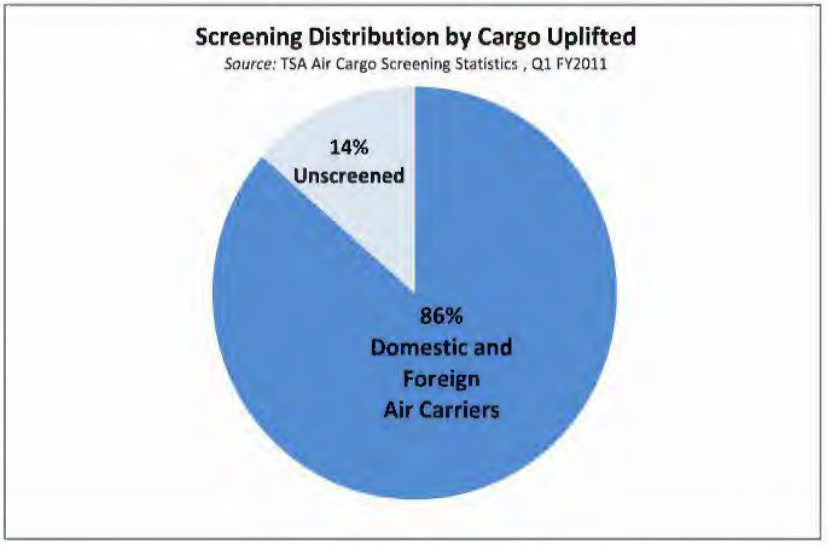
International Inbound (LPD into the United States)

Month	Weight Uplifted (lbs)	Weight Screened (lbs)[9]	Pct. Weight Screened (lbs)
October 2010	254,347,740	221,198,648	87%
November 2010	234,656,477	204,060,463	87%
December 2010	227,376,247	194,148,811	85%
Q1 FY 2011 Total	716,380,464	619,407,922	86%
Q4 FY 2010 Total	649,906,241	550,030,607	85%
Q1 FY 2011 **86 percent of weight screened**			

[9] Weight screened in pounds includes sensitive cargo subject to Alternate Security Measures.

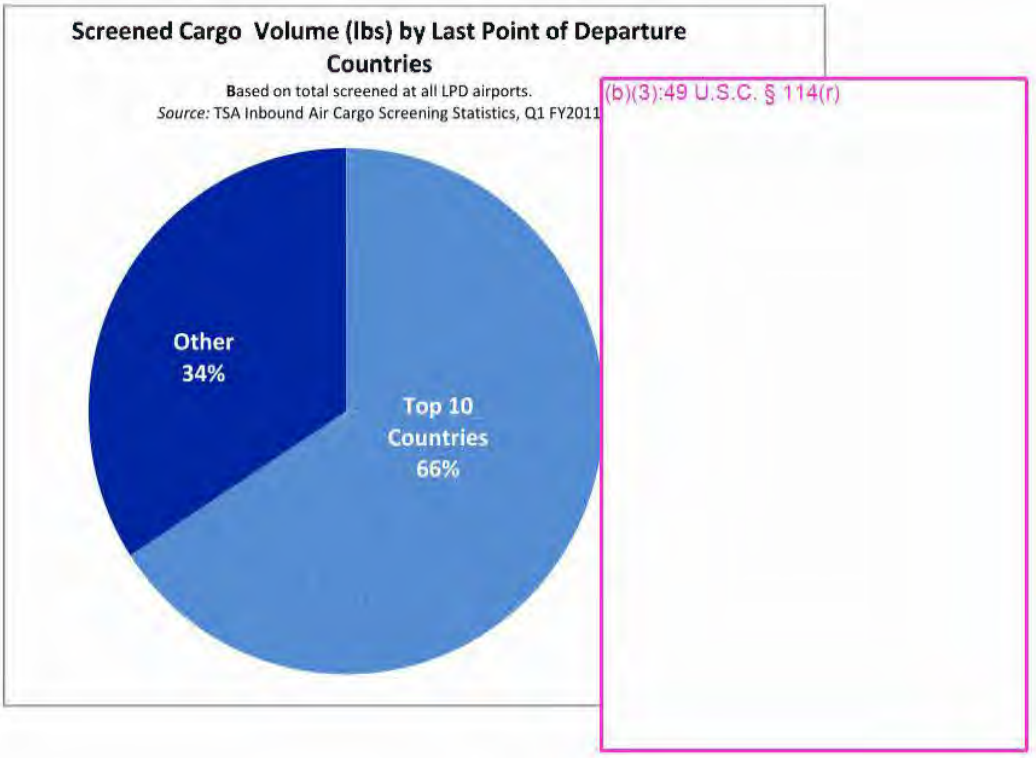
October, November, and December 2010 Screening Statistics for LPD flights

Volume (lbs)
Of approximately 716 million pounds of air cargo entering the United States, 86 percent is screened by weight



Number of Countries

85 countries were last points of departure for inbound air cargo



IV. Appendices

A. Cargo Screening Data by Cat X, I, and Air Carriers

Compliance	Total Uplifted	Total Screened	Pct. Screened
No. Of MAWB	1,257,150	1,256,929	99.9%
Cargo Weight (lbs)	826,931,380	826,515,180	99.9%

BY AIRPORT CATEGORY X, I, AND AIR CARRIERS

TSA CARGO SCREENING RESULTS ON 100-PERCENT REPORTING BY PASSENGER AIR CARRIERS DEPARTING FROM U.S. AIRPORTS

Reporting Period: FY 2011 Q1 (October, November, and December 2010)

Data included in report by carriers submitting usable data to TSA.

Data were calculated on the basis of requirement to screen 100 percent of cargo placed on passenger aircraft effective on August 1, 2010.

NOTE: Figures in this chart have been rounded, therefore column totals may not equal the sum of the numbers displayed in each column.

*MAWB and weight screened includes sensitive cargo subject to Alternate Security Measures.

Summary of Q1 Data	MAWB Uplifted	Weight Uplifted (lbs)	MAWB Screened	Weight Screened (lbs)	Pct. MAWB Screened*	Pct. Weight Screened (lbs)*
Grand Total	1,257,150	826,931,380	1,256,929	826,515,180	99.98%	99.95%

Airport Code	Airport Name	Carrier Name	MAWB Uplifted	Weight Uplifted (lbs)	MAWB Screened	Weight Screened (lbs)	Pct. MAWB Screened*	Pct. Weight Screened*

(b)(3):49 U.S.C. § 114(r)

Airport Code	Airport Name	Carrier Name	MAWB Uplifted	Weight Uplifted (lbs)	MAWB Screened	Weight Screened (lbs)	Pct. MAWB Screened*	Pct. Weight Screened*

(b)(3):49 U.S.C. § 114(r)

Airport Code	Airport Name	Carrier Name	MAWB Uplifted	Weight Uplifted (lbs)	MAWB Screened	Weight Screened (lbs)	Pct. MAWB Screened*	Pct. Weight Screened*

(b)(3):49 U.S.C. § 114(r)

Airport Code	Airport Name	Carrier Name	MAWB Uplifted	Weight Uplifted (lbs)	MAWB Screened	Weight Screened (lbs)	Pct. MAWB Screened*	Pct. Weight Screened*

(b)(3):49 U.S.C. § 114(r)

Airport Code	Airport Name	Carrier Name	MAWB Uplifted	Weight Uplifted (lbs)	MAWB Screened	Weight Screened (lbs)	Pct. MAWB Screened*	Pct. Weight Screened*

(b)(3):49 U.S.C. § 114(r)

Airport Code	Airport Name	Carrier Name	MAWB Uplifted	Weight Uplifted (lbs)	MAWB Screened	Weight Screened (lbs)	Pct. MAWB Screened*	Pct. Weight Screened*
(b)(3):49 U.S.C. § 114(r)								

B. International Inbound Cargo Screening Data by Country and Air Carrier

BY COUNTRY AND AIR CARRIERS

Q1 Compliance	Uplifted	Screened	Pct. Screened
Cargo Weight (LBS)	716,380,464	619,407,922	86.4%

TSA INTERNATIONAL INBOUND CARGO SCREENING RESULTS REPORTED BY PASSENGER AIR CARRIERS

Today's Date: February 6, 2011

Updated: May 6, 2011

Reporting Period: FY2011 Q1

Data included in report by carriers submitting usable data to TSA.

Sorted by cargo weight uplifted (lbs) and view of the top five countries and carriers with subtotals displayed.

**Weight screened includes sensitive cargo subject to Alternate Security Measures.*

NOTE: Figures in this chart have been rounded, therefore column totals may not equal the sum of the numbers displayed in each column.

Country	Carrier Name	Weight Uplifted (lbs)	Weight Screened (lbs)*	Pct. Weight Screened (lbs)
Grand Total		716,380,464	619,407,922	86.46%
		Data		

(b)(3):49 U.S.C. § 114(r)

Country	Carrier Name	Weight Uplifted (lbs)	Weight Screened (lbs)*	Pct. Weight Screened (lbs)
(b)(3):49 U.S.C. § 114(r)				

Country	Carrier Name	Weight Uplifted (lbs)	Weight Screened (lbs)*	Pct. Weight Screened (lbs)
(b)(3):49 U.S.C. § 114(r)				

Country	Carrier Name	Weight Uplifted (lbs)	Weight Screened (lbs)*	Pct. Weight Screened (lbs)
(b)(3):49 U.S.C. § 114(r)				

Country	Carrier Name	Weight Uplifted (lbs)	Weight Screened (lbs)*	Pct. Weight Screened (lbs)
(b)(3):49 U.S.C. § 114(r)				

Air Cargo Screening Statistics

Fiscal Year 2011 Report to Congress
Second Quarter
September 21, 2011

Homeland Security

Transportation Security Administration

Message from the Administrator

September 21, 2011

I am pleased to present the following report, "Air Cargo Screening Statistics Report" for the second quarter of Fiscal Year (FY) 2011, as prepared by the Transportation Security Administration (TSA).

This report was compiled pursuant to Section 1101 of the *Fiscal Year* (FY) *2011 Full-Year Continuing Appropriations Act* (P.L. 112-10), which appropriated funds for FY 2011 under the authority and conditions provided in the *FY 2010 Department of Homeland Security* (DHS) *Appropriations Act* (P.L. 111-83)." Section 514 of P.L. 111-83 requires TSA to submit cargo screening statistics to Congress every quarter. This report includes the amount of cargo that each passenger air carrier screened at each airport. Statistics included in this report are derived from data that air carriers reported during January, February, and March 2011.

Section 1602 of the *Implementing Recommendations of the 9/11 Commission Act of 2007* (P.L.110-53), codified at 49 U.S.C. § 44901(g), mandated that 50 percent of cargo transported on passenger aircraft be screened not later than February 3, 2009, and that 100 percent of cargo transported on passenger aircraft be screened not later than August 3, 2010. TSA is pleased to report that the 100-percent screening mandate of August 2010 has now been achieved with respect to cargo transported on flights of passenger aircraft originating within the United States. Although TSA is continuing to work toward meeting the 100-percent screening mandate for international inbound cargo, this has not yet been fully achieved because of the unique challenges posed in such circumstances.

Pursuant to congressional requirements, this report is being provided to the following Members of Congress:

The Honorable Robert B. Aderholt
Chairman, House Appropriations Subcommittee on Homeland Security

The Honorable David E. Price
Ranking Member, House Appropriations Subcommittee on Homeland Security

The Honorable Mary L. Landrieu
Chairman, Senate Appropriations Subcommittee on Homeland Security

The Honorable Daniel Coats
Ranking Member, Senate Appropriations Subcommittee on Homeland Security

Inquiries relating to this report may be directed to me at (571) 227-(b)(6) or to the Department's Deputy Chief Financial Officer, Peggy Sherry, at (b)(6)

Sincerely yours,

John S. Pistole
Administrator

Executive Summary

This document constitutes TSA's submission of the air cargo screening statistics for the second quarter of FY 2011, as required by the *FY 2011 Full-Year Continuing Appropriations Act* (P.L. 112-10).

The air cargo screening report for the second quarter of FY 2011 includes a variety of statistics that identify the volume of air cargo accepted and screened, as reported by passenger air carriers. Specifically, the report summarizes the following information:

1) Air cargo screening statistics from regulated domestic and foreign air carriers. This information encompasses all data, figures, and diagrams for the months of January, February, and March 2011. Specifically, the data cover cargo uplifted on passenger flights originating within the United States and its territories and cargo uplifted on international inbound passenger flights originating outside the United States and its territories. The total percentage of cargo screened on flights of passenger aircraft originating within the United States during this reporting period is 100 percent by weight and 100 percent by Master Air Way Bill (MAWB).[1] According to data submitted by air carriers, the total screening percentage of cargo transported on flights of passenger aircraft arriving into the United States from international locations during this reporting period is 84 percent by weight.

2) Alternate security measures are applied to cargo shipments that may be damaged or compromised if TSA's customary screening metbods are employed. These types of cargo shipments may include but are not limited to the following: human remains, medical shipments, live animals, diplomatic pouches, etc. Cargo subject to alternate security measures is "screened" within the definition of screening in the Implementing Recommendations of the *9/11 Commission Act of 2007* (49 U.S.C. 44901(g)(5)) and counts toward the 100-percent mandate. TSA allows cargo handled by way of alternate security measures to be accepted for transport on a passenger or all cargo aircraft. For cargo uplifted on flights of passenger aircraft originating in the United States and its territories, the total volume of cargo screened includes cargo screened using approved screening measures, as well as cargo handled by way of alternate security measures.

3) Air cargo screening statistics linked to Indirect Air Carriers (IACs), shippers, and other entities certified by TSA to screen cargo for uplift on domestic passenger flights. These Certified Cargo Screening Facilities (CCSF) report cargo screening data to TSA pursuant to their program requirements. During this period, 557 CCSF-IACs were required to screen. The total weight of shipments uplifted on flights originating within the

[1] Calculations of reported data show that 99.9 percent of the cargo shipments (MAWBs) and weight were screened in January, February, and March 2011. TSA is addressing the less than 0.1 percent rate of non-compliance.

United States and its territories screened by CCSF-IACs was 364,048,222 pounds, while the total number of MAWBs of shipments uplifted on flights originating within the United States and its territories screened during this period was 287,317.

4) During this reporting period, TSA collected data from air carriers during the months of January, February, and March 2011. These statistics indicate that 701,864,870 pounds of air cargo entered the United States aboard passenger aircraft and indicated that 591,761,885 pounds or 84 percent of total cargo were screened before uplift from last point of departure (LPD) flights into the United States.

Air Cargo Screening Statistics
Second Quarter Fiscal Year 2011

Table of Contents

I. Legislative Language

TSA respectfully submits the Air Cargo Screening Statistics report for the second quarter of FY 2011 pursuant to Section 1101(a)(3) of the *FY 2011 Full-Year Continuing Appropriations Act* (P.L. 112-10), which continued in effect the reporting requirement of the *FY 2011 DHS Appropriations Act* (P.L 111-83), Section 514(b):

> Not later than 45 days after the end of each quarter, the Assistant Secretary shall submit to the Committees on Appropriations of the Senate and the House of Representatives a report on air cargo inspection statistics by airport and air carrier detailing the incremental progress being made to meet the requirement of section 44901(g)(2)(B) of title 49, United States Code.

II. Background

Section 514(b) of the *FY 2010 DHS Appropriations Act* (P.L. 111-83) requires TSA to report quarterly to the Committees on Appropriations of the Senate and the House of Representatives "on air cargo screening statistics by airport and air carrier detailing the incremental progress being made to meet the requirement of section 44901(g)(2)(B) of title 49, United States Code." The reporting requirement is continued by operation of section 1101(a)(3) of P.L. 112-10.

To implement this congressional mandate, TSA updated the air carrier security programs to require air carriers to submit cargo statistics monthly for TSA's report to Congress. Other measures implemented by TSA through its regulatory authorities to meet the 100-percent screening requirement for cargo transported on passenger aircraft mandated by the *Implementing Recommendations of the 9/11 Commission Act of 2007* (P.L. 110-53) included the requirement to screen 100 percent of cargo loaded on passenger aircraft at smaller commercial Category II–IV airports throughout the United States. TSA also mandated 100-percent screening of cargo identified as elevated risk within the U.S. air cargo supply chain and required that sensitive cargo be subject to alternate security measures. In October 2008, TSA mandated the screening of 100 percent of cargo placed on narrow body aircraft departing any commercial airport within the United States and its territories.

In May 2010, TSA increased the required screening percentages for cargo transported on flights of passenger aircraft departing to the United States from international locations and required air carriers to report total inbound weight uplifted and weight screened. The increased screening requirements now include: 100 percent on narrow body, 100 percent of all loose shipments (those not tendered on skids), and 15 percent of shipments configured on skids, per flight.

On August 1, 2010, TSA required air carriers to ensure that 100 percent of cargo is screened prior to uplift on any passenger aircraft flight originating within the United States.

III. TSA Air Cargo Screening Statistics Report

A. Second Quarter FY 2011 Screening Summary

Pursuant to the reporting requirement set forth in P.L. 112-10, TSA hereby submits air cargo screening data for the second quarter of FY 2011. Air carrier data for January, February, and March 2011 show that 100 percent of cargo transported on flights of passenger aircraft originating within the United States is screened in accordance with the *Implementing Recommendations of the 9/11 Commission Act of 2007* (P.L. 110-53).[1]

Cargo Uplifted on Flights Originating Within the United States and Territories[2]

Month	Pct. MAWB Screened	Pct. Weight Screened (lbs)
January 2011[1]	100%	100%
February 2011[1]	100%	100%
March 2011[1]	100%	100%
Q2 FY 2011 Total	100%	100%
Q1 FY 2011 Total	100%	100%

Cargo Uplifted on Inbound Flights Originating Outside the United States and Territories

Month	Weight Uplifted (lbs)	Weight Screened (lbs)[2]	Pct. Weight Screened (lbs)
January 2011[1]	211,139,133	182,032,321	86%
February 2011[1]	242,026,358	188,533,262	78%
March 2011[1]	248,699,379	221,196,302	89%
Q2 FY 2011 Total	701,864,870	591,761,885	84%
Q1 FY 2011 Total	716,380,464	619,407,922	86%

[1] Calculations of reported data show that 99.9 percent of the cargo shipments (MAWB) and weight were screened in January, February, and March 2011. TSA is addressing the less than 0.1 percent rate of non-compliance.
[2] The amount of cargo screened includes sensitive cargo subject to Alternate Security Measures.

B. Domestic Air Carrier Statistics – All Airports

Air carriers operating domestically reported cargo screening data to TSA pursuant to their security programs. An analysis of data from January, February, and March 2011 shows that 100 percent of cargo transported on passenger aircraft originating within the United States is screened in accordance with the *Implementing Recommendations of the 9/11 Commission Act of 2007* (P.L. 110-53). A summary of these statistics follows.

Cargo Uplifted on Flights Originating Within the United States and Territories[3, 4]

Month	No. of MAWB Uplifted	Weight Uplifted (lbs)	No. of MAWB Screened[5]	Weight Screened (lbs)
January 2011	420,792	256,938,788	420,626	256,718,172
February 2011	409,376	269,122,986	409,376	269,122,986
March 2011	464,264	287,826,475	464,264	287,826,475
Q2 FY 2011 Total	1,294,432	813,888,249	1,294,266	813,667,633
Q1 FY 2011 Total	1,335,585	833,388,105	1,335,364	832,971,904
Q2 FY2011 Total **100 percent of MAWB screened** **100 percent of weight screened**				

[3] The difference between the reported number of MAWB uplifted and MAWBs screened is the rate of non-compliance, which is less than 0.1 percent. TSA is addressing this non-compliance.
[4] These data include screening as reported from Category X, I, II, III, and IV airports.
[5] Cargo screened includes sensitive cargo subject to Alternate Security Measures.

Cargo Screening Distribution for January, February, and March 2011

(b)(3):49 U.S.C. § 114(r)

C. Domestic Certified Cargo Screening Program

IACs, shippers, and other entities screening cargo for uplift on domestic passenger flights as CCSFs also reported cargo screening data to TSA pursuant to their program/order requirements. A summary of these data follows. These numbers are included in cargo data reported by air carriers.

CCSF-IAC Shipments Uplifted on Flights Originating Within the United States and Territories

Month	No. of IACs Required to Screen[6]	No. of MAWB Screened	Weight Screened (lbs)
January 2011	560	79,746	109,090,742
February 2011	556	84,132	117,022,447
March 2011	557	123,439	137,935,033
Q2 FY 2011 Total	557	287,317	364,048,222
Q1 FY 2011 Total	537	267,326	386,977,730

CCSF (Non-IAC) Shipments Uplifted on Flights Originating Within the United States and Territories

Month	No. of Non-IAC Required to Screen[7]	No. of House Air Way Bills Screened	Weight Screened (lbs)
January 2011	608	206,193	27,286,715
February 2011	608	196,581	25,145,871
March 2011	618	243,719	29,968,839
Q2 FY 2011 Total	618	646,493	82,401,425
Q1 FY 2011 Total	545	488,206	81,147,165

[6] IACs must screen 90 days after certification. The data collected for the *No. of CCSF IACs Required to Screen* in this table are for each CCSF facility. Under this column, the figure represented at *Q2 FY 2011 Total* is a cumulative total of the number of IACs that are required to screen cargo at the end of the quarter; whereas, the figures associated with January, February, and March 2011 represent a running total of the number of IACs that are required to screen cargo as of that month.

[7] Non-IAC CCSFs must screen 90 days after certification. The data collected for the *No. of CCSF (Non-IACs) Required to Screen* in this table are for each CCSF facility. Under this column, the figure represented at *Q2 FY 2011 Total* is a cumulative total of the number of CCSFs (Non-IACs) that are required to screen cargo at the end of the quarter; whereas, the figures associated with January, February, and March 2011 represent a running total of the number of CCSFs (Non-IACs) that are required to screen cargo as of that month.

D. International Last Point of Departure Screened Cargo

Effective May 1, 2010, both domestic and foreign air carriers operating in international locations with a LPD flight into the United States must report cargo screening data to TSA pursuant to their security programs. Accordingly, air carriers submitted data for January, February, and March 2011.

These statistics indicate that 701,864,870 pounds of air cargo entered the United States aboard passenger aircraft and indicate that 591,761,885 pounds, or 84 percent, of total cargo were screened before uplift from an LPD into the United States. However, in subsequent discussions with industry, it became apparent that all carriers may not have been including transfer cargo or mail in their reports. TSA is working with industry to clarify reporting requirements.

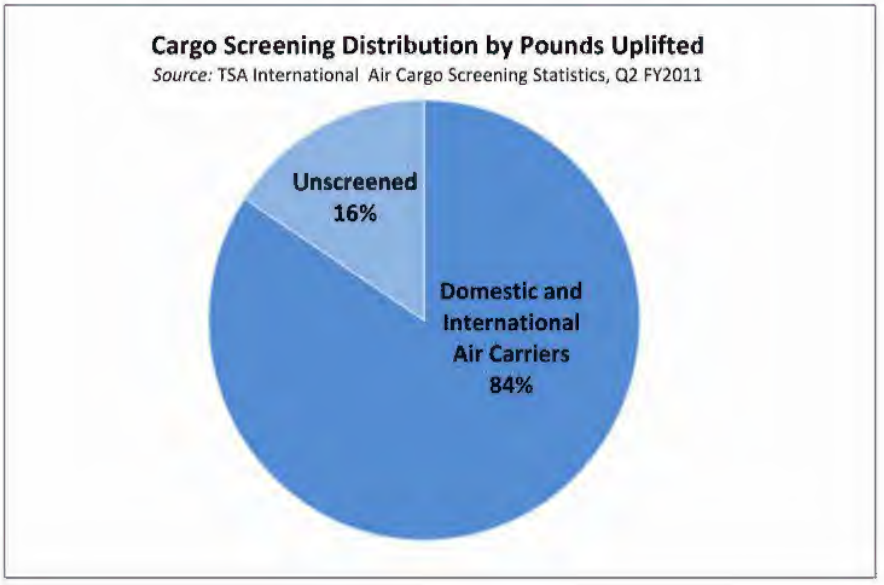
International Inbound (LPD into the United States)

Month	Weight Uplifted (lbs)	Weight Screened (lbs)[8]	Pct. Weight Screened (lbs)
January 2011	211,139,133	182,032,321	86%
February 2011	242,026,358	188,533,262	78%
March 2011	248,699,379	211,196,302	89%
Q2 FY 2011 Total	701,864,870	591,761,885	84%
Q1 FY 2011 Total	716,380,464	619,407,922	86%
Q2 FY 2011 **84 percent of weight screened**			

[8] Weight screened in pounds includes sensitive cargo subject to Alternate Security Measures.

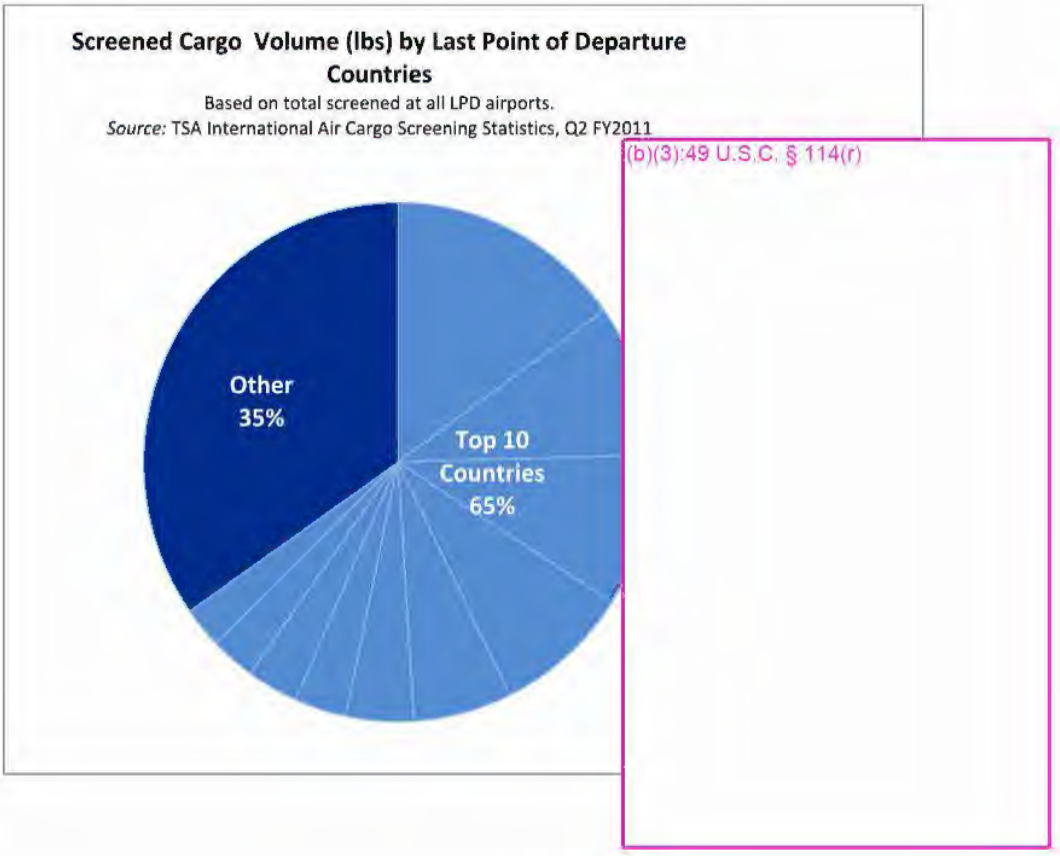
January, February, and March 2011 Screening Statistics for LPD flights

Volume (lbs)
Of approximately 702 million pounds of air cargo entering the United States, 84 percent is screened by weight



January, February, and March 2011 Screening Statistics for LPD flights

Number of Countries
84 countries were last points of departure for inbound air cargo



IV. Appendices

A. Cargo Screening Data by Cat X, I, and Air Carrier

BY AIRPORT CATEGORY X, I, AND AIR CARRIERS
TSA CARGO SCREENING RESULTS ON 100-PERCENT REPORTING BY PASSENGER AIR CARRIERS DEPARTING FROM U.S. AIRPORTS

Reporting Period: FY2011-Q2 (January, February, and March 2011)

Data included in report by carriers submitting usable data to TSA.

Q2 Compliance	Total Uplifted	Total Screened	% Screened
# Of MAWB	1,225,346	1,225,180	99.99%
Cargo Weight (lbs)	807,619,567	807,398,951	99.97%

Data were calculated based on the requirement to screen 100 percent of cargo placed on passenger aircraft effective on August 1, 2010.

Note: Figures in this chart have been rounded, therefore column totals may not equal the sum of the numbers displayed in each column.

*Number of MAWB and weight screened includes sensitive cargo subject to Alternate Security Measures.

Summary of Q2 Data	MAWB Uplifted	Weight Uplifted (lbs)	MAWB Screened*	Weight Screened (lbs)*	% MAWB Screened	% Weight Screened (lbs)*
Grand Total	1,225,346	807,619,567	1,225,180	807,398,951	99.99%	99.97%

Airport Code	Airport Name	Carrier Name	MAWB Uplifted	Weight Uplifted (lbs)	MAWB Screened*	Weight Screened (lbs)*	% MAWB Screened	% Weight Screened
(b)(3):49 U.S.C. § 114(r)								

Airport Code	Airport Name	Carrier Name	MAWB Uplifted	Weight Uplifted (lbs)	MAWB Screened*	Weight Screened (lbs)*	% MAWB Screened	% Weight Screened

(b)(3):49 U.S.C. § 114(r)

Airport Code	Airport Name	Carrier Name	MAWB Uplifted	Weight Uplifted (lbs)	MAWB Screened*	Weight Screened (lbs)*	% MAWB Screened	% Weight Screened

(b)(3):49 U.S.C. § 114(r)

Airport Code	Airport Name	Carrier Name	MAWB Uplifted	Weight Uplifted (lbs)	MAWB Screened*	Weight Screened (lbs)*	% MAWB Screened	% Weight Screened

(b)(3):49 U.S.C. § 114(r)

Airport Code	Airport Name	Carrier Name	MAWB Uplifted	Weight Uplifted (lbs)	MAWB Screened*	Weight Screened (lbs)*	% MAWB Screened	% Weight Screened

(b)(3):49 U.S.C. § 114(r)

Airport Code	Airport Name	Carrier Name	MAWB Uplifted	Weight Uplifted (lbs)	MAWB Screened*	Weight Screened (lbs)*	% MAWB Screened	% Weight Screened

(b)(3):49 U.S.C. § 114(r)

B. International Inbound Cargo Screening Data by Country and Air Carrier

BY COUNTRY AND AIR CARRIERS

TSA INTERNATIONAL INBOUND CARGO SCREENING RESULTS REPORTED BY PASSENGER AIR CARRIERS

Today's Date: May 27, 2011

Reporting Period: FY2011-Q2

Q2 Compliance	Uplifted	Screened	% Screened
Cargo Weight (LBS)	701,864,870	591,761,885	84.3%

Data included in report by carriers submitting usable data to TSA.

Sorted by cargo weight uplifted (lbs) and view of the top five countries and carriers with subtotals displayed.

**Weight screened includes sensitive cargo subject to Alternate Security Measures.*

Note: Figures in this chart have been rounded, therefore column totals may not equal the sum of the numbers displayed in each column.

Country	Carrier Name	Weight Uplifted (lbs)	Weight Screened (lbs)*	% Weight Screened (lbs)
Summary of Q2 Data				
Grand Total		701,864,870	591,761,885	84.31%

(b)(3):49 U.S.C. § 114(r)

Country	Carrier Name	Weight Uplifted (lbs)	Weight Screened (lbs)*	% Weight Screened (lbs)

(b)(3):49 U.S.C. § 114(r)

Country	Carrier Name	Weight Uplifted (lbs)	Weight Screened (lbs)*	% Weight Screened (lbs)
(b)(3):49 U.S.C. § 114(r)				

Country	Carrier Name	Weight Uplifted (lbs)	Weight Screened (lbs)*	% Weight Screened (lbs)

(b)(3):49 U.S.C. § 114(r)

Country	Carrier Name	Weight Uplifted (lbs)	Weight Screened (lbs)*	% Weight Screened (lbs)

(b)(3):49 U.S.C. § 114(r)

Air Cargo Screening Statistics

Fiscal Year 2011 Report to Congress
Third Quarter
February 3, 2012

Homeland Security

Transportation Security Administration

Message from the Administrator

February 3, 2012

I am pleased to present the following report, "Air Cargo Screening Statistics" for the third quarter of Fiscal Year (FY) 2011, as prepared by the Transportation Security Administration (TSA).

This report was compiled pursuant to Section 1101 of the *FY 2011 Full-Year Continuing Appropriations Act* (P.L. 112-10), and "under the authority and conditions provided in … the Department of Homeland Security Appropriations Act, 2010" (P.L. 111-83). Section 514 of P.L. 111-83 requires TSA to submit cargo screening statistics to Congress every quarter. This report includes the amount of cargo that each passenger air carrier screened at each airport. Statistics included in this report are derived from data that air carriers reported during April, May, and June 2011.

Section 1602 of the *Implementing Recommendations of the 9/11 Commission Act of 2007* (P.L. 110-53), codified at 49 U.S.C. § 44901(g), mandated that 50 percent of cargo transported on passenger aircraft be screened not later than February 3, 2009, and that 100 percent of cargo transported on passenger aircraft be screened not later than August 3, 2010. TSA is pleased to report that the 100-percent screening mandate of August 2010 has now been achieved with respect to cargo transported on flights of passenger aircraft originating within the United States. Although TSA is continuing to work toward meeting the 100-percent screening mandate for international inbound cargo, this bas not yet been fully achieved because of the unique challenges posed in such circumstances.

Pursuant to congressional requirements, this report is being provided to the following Members of Congress:

The Honorable Robert B. Aderholt
Chairman, House Appropriations Subcommittee on Homeland Security

The Honorable David E. Price
Ranking Member, House Appropriations Subcommittee on Homeland Security

The Honorable Mary L. Landrieu
Chairman, Senate Appropriations Subcommittee on Homeland Security

The Honorable Daniel Coats
Ranking Member, Senate Appropriations Subcommittee on Homeland Security

Inquiries relating to this report may be directed to me at (571) 227-(b) or to the Department's Deputy Chief Financial Officer, Peggy Sherry, at (b)(6)

Sincerely yours,

John S. Pistole
Administrator

Executive Summary

This document constitutes TSA's submission of the air cargo screening statistics for the third quarter of FY 2011, as required by the *FY 2011 Full-Year Continuing Appropriations Act* (P.L. 112-10).

The third quarter FY 2011 air cargo screening report includes a variety of statistics that identify the volume of air cargo accepted and screened, as reported by passenger air carriers. Specifically, the report summarizes the following information:

1) Air cargo screening statistics from regulated domestic and foreign air carriers. This information encompasses all data, figures, and diagrams for the months of April, May, and June 2011. Specifically, the data cover cargo uplifted on passenger flights originating within the United States and its territories and cargo uplifted on international inbound passenger flights originating outside the United States/territories. The total percentage of cargo screened on flights of passenger aircraft originating within the United States during this reporting period is 100 percent by weight and 100 percent by Master Air Way Bill (MAWB).[1] According to data submitted by air carriers, the total screening percentage of cargo transported on flights of passenger aircraft arriving into the United States from international locations during this reporting period is 87 percent by weight.

2) Alternate security measures are applied to cargo shipments that may be damaged or compromised if TSA's customary screening methods are employed. These types of cargo shipments may include hut are not limited to the following: human remains, medical shipments, live animals, diplomatic pouches, etc. Cargo subject to alternate security measures is "screened" within the definition of screening in the *Implementing Recommendations of the 9/11 Commission Act of 2007* (44901(g)(5)) and does count toward the 100-percent mandate. TSA allows cargo handled by way of alternate security measures to be accepted for transport on a passenger or all-cargo aircraft. For cargo uplifted on flights of passenger aircraft originating in the United States/territories, the total volume of cargo screened includes cargo screened using approved screening measures, as well as cargo handled by way of alternate security measures.

3) Air cargo screening statistics linked to Indirect Air Carriers (IACs), shippers, and other entities certified by TSA to screen cargo for uplift on domestic passenger flights. These Certified Cargo Screening Facilities (CCSFs) report cargo screening data to TSA pursuant to their program requirements. During this period, 551 CCSF-IACs were

[1] Calculations of reported data show that 99.9 percent of the cargo shipments (MAWBs) and weight were screened in April, May, and June 2011. TSA is addressing the less than 0. -percent rate of non-compliance.

required to screen cargo. The total weight of shipments uplifted on flights originating within the United States/territories screened by CCSF-IACs was 403,955,443 pounds, while the total number of MAWBs of shipments uplifted on flights originating within the United States/territories screened during this period was 370,174.

4) During this reporting period, TSA collected data from air carriers during the months of April, May, and June 2011. These statistics indicate that 730,558,164 pounds of air cargo entered the United States aboard passenger aircraft and indicated that 635,711,999 pounds or 87 percent of total cargo were screened before uplift from Last Point of Departure (LPD) flights into the United States.

Air Cargo Screening Statistics
Third Quarter Fiscal Year 2011

Table of Contents

I. Legislative Language

TSA respectfully submits the Third Quarter Fiscal Year 2011 "Air Cargo Screening Statistics" report pursuant to Section 1101(a)(3) of the *FY 2011 Full-Year Continuing Appropriations Act* (P.L. 112-10), which continued in effect the reporting requirement of the *FY 2010 Department of Homeland Security* (DHS) *Appropriations Act* (P.L 111-83), Section 514(b):

> Not later than 45 days after the end of each quarter, the Assistant Secretary shall submit to the Committees on Appropriations of the Senate and the House of Representatives a report on air cargo inspection statistics by airport and air carrier detailing the incremental progress being made to meet the requirement of section 44901(g)(2)(B) of title 49, United States Code.

II. Background

Section 514(b) of the *FY 2010 DHS Appropriations Act* (P.L. 111-83) requires TSA to report quarterly to the Committees on Appropriations of the Senate and the House of Representatives "on air cargo screening statistics by airport and air carrier detailing tbe incremental progress being made to meet the requirement of section 44901(g)(2)(B) of title 49, United States Code." The reporting requirement is continued by operation of Section 1101(a)(3) of the *FY 2011 Full-Year Continuing Appropriations Act* (P.L 111-83).

To implement this congressional mandate, TSA updated air carrier security programs to require air carriers to submit monthly cargo statistics for TSA's report to Congress. Other measures implemented by TSA through its regulatory authorities to meet the 100-percent screening requirement for cargo transported on passenger aircraft mandated by the *Implementing Recommendations of the 9/11 Commission Act of 2007* (P.L.110-53) included the requirement to screen 100 percent of cargo loaded on passenger aircraft at smaller commercial Category II–IV airports throughout the United States. TSA also mandated 100-percent screening of cargo identified as elevated risk within the U.S. air cargo supply cbain and required that sensitive cargo be subject to alternate security measures. In October 2008, TSA mandated the screening of 100 percent of cargo placed on narrow body aircraft departing any commercial airport within the United States and its territories.

In May 2010, TSA increased the required screening percentages for cargo transported on flights of passenger aircraft departing to the United States from international locations, and required air carriers to report total inbound weight uplifted and weight screened. The increased screening requirements now include: 100 percent on narrow body aircraft, 100 percent of all loose shipments (those not tendered on skids), and 15 percent of shipments configured on skids, per flight.

On August 1, 2010, TSA required air carriers to ensure that 100 percent of cargo be screened before uplift on any passenger aircraft flight originating within the United States.

III. TSA Air Cargo Screening Statistics Report

A. Third Quarter FY 2011 Screening Summary

Pursuant to the reporting requirement set forth in P.L. 112-10, TSA hereby submits air cargo screening data for the third quarter of FY 2011. Air carrier data for April, May, and June 2011 show that 100 percent of cargo transported on flights of passenger aircraft originating within the United States was screened in accordance with the *Implementing Recommendations of the 9/11 Commission Act of 2007* (P.L. 110-53).

Cargo Uplifted on Flights Originating Within the United States and Territories[2]

Month	Pct. MAWB Screened	Pct. Weight Screened (lbs)
April 2011	100%	100%
May 2011	100%	100%
June 2011	100%	100%
Q3 FY 2011 Total	100%	100%
Q2 FY 2011 Total	100%	100%
Q1 FY 2011 Total	100%	100%

Cargo Uplifted on Inbound Flights Originating Outside the United States and Territories

Month	Weight Uplifted (lbs)	Weight Screened (lbs)[3]	Pct. Weight Screened (lbs)
April 2011	235,323,055	207,882,529	88%
May 2011	251,649,359	218,719,558	87%
June 2011	243,585,750	209,109,912	86%
Q3 FY 2011 Total	730,558,164	635,711,999	87%
Q2 FY 2011 Total	701,864,870	591,761,885	84%
Q1 FY 2011 Total	716,380,464	619,407,922	86%

[2] The amount of cargo screened includes sensitive cargo subject to Alternate Security Measures.

[3] Calculations of reported data show that 99.9 percent of the cargo shipments (MAWBs) and weight were screened in April, May, and June 2011. TSA is addressing the less than 0. -percent rate of non-compliance.

B. Domestic Air Carrier Statistics – All Airports

Air carriers operating domestically reported cargo screening data to TSA pursuant to their security programs. Industry data from April, May, and June 2011 show that 100 percent of cargo transported on passenger aircraft originating within the United States was screened in accordance with P.L. 110-53. A summary of these statistics follows.

Cargo Uplifted on Flights Originating Within the United States and Territories[4, 5]

Month	No. of MAWB Uplifted	Weight Uplifted (lbs)	No. of MAWB Screened[6]	Weight Screened (lbs)
April 2011	446,768	277,132,979	446,768	277,132,979
May 2011	468,952	284,205,237	468,952	284,205,237
June 2011	455,848	289,905,129	455,848	289,905,129
Q3 FY 2011 Total	1,371,568	851,243,345	1,371,568	851,243,345
Q2 FY 2011 Total	1,294,432	813,888,249	1,294,266	813,667,633
Q1 FY 2011 Total	1,335,585	833,388,105	1,335,364	832,971,904
Q3 FY 2011 Total **100 percent of MAWB screened** **100 percent of weight screened**				

[4] Any differences between the reported number of MAWB uplifted and MAWBs screened is the rate of non-compliance, which is less than 0.1 percent. TSA is addressing this non-compliance.

[5] These data include screening as reported from Category X, I, II, III, and IV airports.

[6] Cargo screened includes sensitive cargo subject to Alternate Security Measures.

Cargo Screening Distribution for April, May, and June 2011

(b)(3):49 U.S.C. § 114(r)

C. Domestic Certified Cargo Screening Program

IACs, shippers, and other entities screening cargo for uplift on domestic passenger flights as CCSFs also reported cargo screening data to TSA pursuant to their program/order requirements. A summary of these data follows. These numbers are included in cargo data reported by air carriers.

CCSF-IAC Shipments Uplifted on Flights Originating Within the United States and Territories

Month	No. of IACs Required to Screen[7]	No. of MAWB Screened	Weight Screened (lbs)
April 2011	548	124,255	128,206,925
May 2011	551	119,977	134,608,326
June 2011	550	125,942	141,140,192
Q3 FY 2011 Total	550	370,174	403,955,443
Q2 FY 2011 Total	557	287,317	364,048,222
Q1 FY 2011 Total	537	267,326	386,977,730

CCSF (Non-IAC) Shipments Uplifted on Flights Originating Within the United States and Territories

Month	No. of Non-IAC Required to Screen[8]	No. of House Air Way Bills Screened	Weight Screened (lbs)
April 2011	595	228,503	30,285,411
May 2011	603	323,625	32,634,854
June 2011	608	208,290	33,260,277
Q3 FY 2011 Total	608	760,418	96,180,542
Q2 FY 2011 Total	618	646,493	82,401,425
Q1 FY 2011 Total	545	488,206	81,147,165

[7] IACs must screen 90 days after certification. The data collected for the *No. of CCSF IACs Required to Screen* in this table are for each facility. Under this column, the figure in *Q3 FY 2011 Total* represents a running total of the number of facilities that are required to screen cargo at the end of the quarter; whereas, the figures associated with each month represent a running total of the number of facilities that are required to screen cargo as of that month.

[8] Non-IAC CCSFs must screen 90 days after certification. The data collected for the *No. of CCSF (Non-IACs) Required to Screen* in this table are for each facility. Under this column, the figure in *Q3 FY 2011 Total* represents a running total of the number of facilities that are required to screen cargo at the end of the quarter; whereas, the figures associated with each month represent a running total of the number of facilities that are required to screen cargo as of that month.

D. International Last Point of Departure Screened Cargo

Effective May 1, 2010, both domestic and foreign air carriers operating in international locations with a LPD flight into the United States must report cargo screening data to TSA pursuant to their security programs. Accordingly, air carriers submitted data for April, May, and June 2011.

These industry statistics indicate that 730,558,164 pounds of air cargo entered the United States aboard passenger aircraft and indicate that 635,711,999 pounds or 87 percent of total cargo were screened before uplift from an LPD into the United States. However, in subsequent discussions with industry, it became apparent that all carriers may not have been including transfer cargo or mail in their reports. TSA is working with industry to clarify reporting requirements.

International Inbound (LPD into the United States)

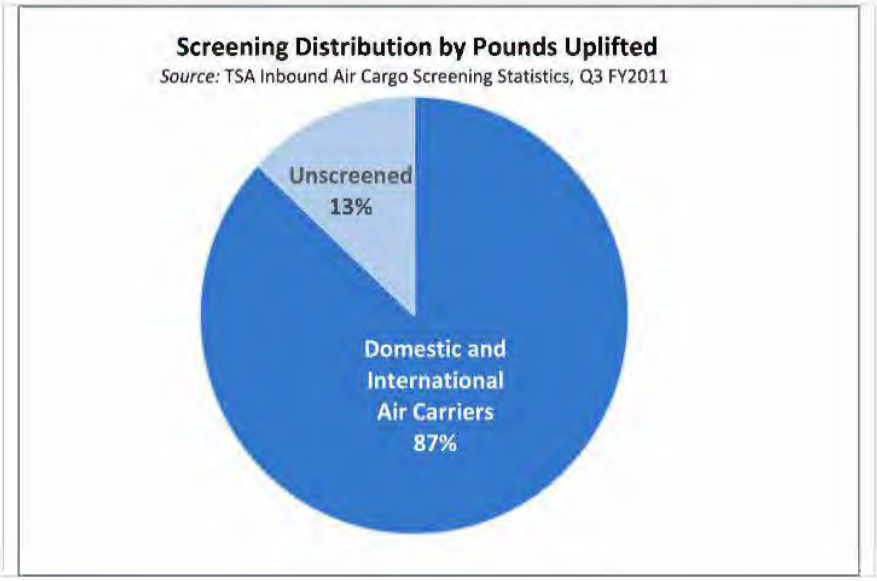
Month	Weight Uplifted (lbs)	Weight Screened (lbs)[9]	Pct. Weight Screened (lbs)
April 2011	235,323,055	207,882,529	88%
May 2011	251,649,359	218,719,558	87%
June 2011	243,585,750	209,109,912	86%
Q3 FY 2011 Total	730,558,164	635,711,999	87%
Q2 FY 2011 Total	701,864,870	591,761,885	84%
Q1 FY 2011 Total	716,380,464	619,407,922	86%
Q3 FY 2011 **87 percent of weight screened**			

[9] Weight screened in pounds includes sensitive cargo subject to Alternate Security Measures.

April, May, and June 2011 Screening Statistics for LPD flights

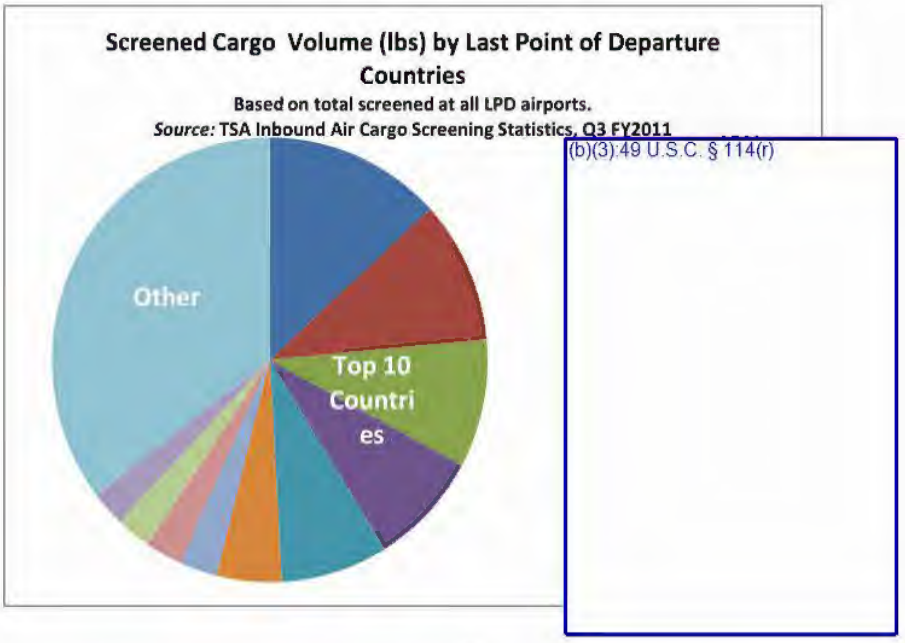
Volume (lbs)

Of approximately 731 million pounds of air cargo entering the United States, industry data indicate that 87 percent is screened by weight.



Number of Countries

85 countries were LPDs for inbound air cargo



IV. Appendices

A. Cargo Screening Data by Cat X, I, and Air Carrier

Cat X,I Compliance	Total Uplifted	Total Screened	% Screened
# Of MAWB	1,297,737	1,297,737	100.00%
Cargo Weight (lbs)	841,745,048	841,745,048	100.00%

BY AIRPORT CATEGORY X, I, AND AIR CARRIERS
TSA CARGO SCREENING RESULTS ON 100 PERCENT REPORTING BY PASSENGER AIR CARRIERS

DEPARTING FROM U.S. AIRPORTS

Reporting Period: FY2011-Q3 (April, May, June 2011)

Data included in report by carriers submitting usable data to TSA.

Data were calculated based on the requirement to screen 100 percent of cargo placed on passenger aircraft effective on August 1, 2010.

Note: Figures in this chart have been rounded, therefore column totals may not equal the sum of the numbers displayed in each column.

*Number of MAWB and weight screened includes sensitive cargo subject to Alternate Security Measures.

Summary of Q3 Data Based on Category X, I Airports	MAWB Uplifted	Weight Uplifted (lbs)	MAWB Screened*	Weight Screened (lbs)*	% MAWB Screened	% Weight Screened (lbs)*
Grand Total	1,297,737	841,745,048	1,297,737	841,745,048	100.00%	100.00%

Airport Code	Airport Name	Carrier Name	MAWB Uplifted	Weight Uplifted (lbs)	MAWB Screened*	Weight Screened (lbs)*	% MAWB Screened	% Weight Screened
			Data					

(b)(3):49 U.S.C. § 114(r)

Airport Code	Airport Name	Carrier Name	MAWB Uplifted	Weight Uplifted (lbs)	MAWB Screened*	Weight Screened (lbs)*	% MAWB Screened	% Weight Screened

(b)(3):49 U.S.C. § 114(r)

Airport	Airport Name	Carrier Name	MAWB Uplifted	Weight Uplifted	MAWB Screened*	Weight Screened	% MAWB Screened	% Weight

(b)(3):49 U.S.C. § 114(r)

Airport Code	Airport Name	Carrier Name	MAWB Uplifted	Weight Uplifted (lbs)	MAWB Screened*	Weight Screened (lbs)*	% MAWB Screened	% Weight Screened

(b)(3):49 U.S.C. § 114(r)

Airport Code	Airport Name	Carrier Name	MAWB Uplifted	Weight Uplifted (lbs)	MAWB Screened*	Weight Screened (lbs)*	% MAWB Screened	% Weight Screened
(b)(3):49 U.S.C. § 114(r)								

B. International Inbound Cargo Screening Data by Country and Air Carrier

BY COUNTRY AND AIR CARRIERS

Q3 Compliance	Uplifted	Screened	% Screened
Cargo Weight (LBS)	703,558,164	635,711,999	87.0%

Reporting Period: Q3 FY 2011 (April, May, June 2011)

Data included in report by carriers submitting usable data to TSA.

Sorted by cargo weight uplifted (lbs) and view of the top five countries and carriers with subtotals displayed.

**Weight screened in pounds includes sensitive cargo subject to Alternate Security Measures.*

Note: Figures in this chart have been rounded, therefore column totals may not equal the sum of the numbers displayed in each column.

Summary of Q3 Data	Weight Uplifted (lbs)	Weight Screened (lbs)*	% Weight Screened (lbs)
Grand Total	730,558,164	635,711,999	87.02%

Country	Carrier Name	Weight Uplifted (lbs)	Weight Screened (lbs)*	% Weight Screened (lbs)
		Data		

(b)(3):49 U.S.C. § 114(r)

Country	Carrier Name	Weight Unlifted (lbs)	Weight Screened (lbs)*	% Weight Screened (lbs)

(b)(3):49 U.S.C. § 114(r)

Country	Weight Uplifted (lbs)	Weight Screened (lbs)*	% Weight Screened (lbs)

(b)(3):49 U.S.C. § 114(r)

Country	Weight Uplifted (lbs)	Weight Screened (lbs)*	% Weight Screened (lbs)

(b)(3):49 U.S.C. § 114(r)

Country	Weight Uplifted (lbs)	Weight Screened (lbs)*	% Weight Screened (lbs)
(b)(3):49 U.S.C. § 114(r)			

Air Cargo Screening Statistics

Fiscal Year 2011 Report to Congress
Fourth Quarter

February 15, 2012

Homeland Security

Transportation Security Administration

Message from the Administrator

February 15, 2012

I am pleased to present the following report, "Air Cargo Screening Statistics" for the fourth quarter of Fiscal Year (FY) 2011, as prepared by the Transportation Security Administration (TSA).

This report was compiled pursuant to Section 1101 of the *FY 2012 Full-Year Continuing Appropriations Act* (P.L. 112-10), which appropriated funds for FY 2012 "under the authority and conditions provided in … the Department of Homeland Security Appropriations Act, 2010" (P.L. 111-83). Section 514 of P.L. 111-83 requires TSA to submit cargo screening statistics to Congress every quarter. This report includes the amount of cargo that each passenger air carrier screened at each airport. Statistics included in this report are derived from data that air carriers reported during July, August, and September 2011.

Section 1602 of the *Implementing Recommendations of the 9/11 Commission Act of 2007* (P.L. 110-53), codified at 49 U.S.C. § 44901(g), mandated that 50 percent of cargo transported on passenger aircraft be screened not later than February 3, 2009, and that 100 percent of cargo transported on passenger aircraft be screened not later than August 3, 2010. TSA is pleased to report that the 100-percent screening mandate of August 2010 has now been achieved with respect to cargo transported on flights of passenger aircraft originating within the United States. Although TSA is continuing to work with our international partners toward meeting the 100-percent screening mandate for international inbound cargo, this has not yet been fully achieved because of several factors including cost. However, 100 percent of inbound cargo assessed as high risk is currently being screened.

Pursuant to congressional requirements, this report is being provided to the following Members of Congress:

The Honorable Robert B. Aderholt
Chairman, House Appropriations Subcommittee on Homeland Security

The Honorable David E. Price
Ranking Member, House Appropriations Subcommittee on Homeland Security

The Honorable Mary L. Landrieu
Chairman, Senate Appropriations Subcommittee on Homeland Security

The Honorable Daniel Coats
Ranking Member, Senate Appropriations Subcommittee on Homeland Security

Inquiries relating to this report may be directed to me at (571) 227-(b)(6) or to the Department's Deputy Chief Financial Officer, Peggy Sherry, at (b)(6)

Sincerely yours,

John S. Pistole
Administrator

Executive Summary

This document constitutes TSA's submission of the air cargo screening statistics for the fourth quarter of FY 2011, as required by the *FY 2011 Full-Year Continuing Appropriations Act* (P.L. 112-10). The fourth quarter FY 2011 air cargo screening report includes a variety of statistics that identify the volume of air cargo accepted and screened, as reported by passenger air carriers. Specifically, the report summarizes the following information:

1) Air cargo screening statistics from regulated domestic and foreign air carriers. This information encompasses all data, figures, and diagrams for the months of July, August, and September 2011. Specifically, the data cover cargo uplifted on passenger flights originating within the United States and its territories and cargo uplifted on international inbound passenger flights originating outside the United States/territories. The total percentage of cargo screened on flights of passenger aircraft originating within the United States during this reporting period is 100 percent by weight and 100 percent by Master Air Way Bill (MAWB).[1] According to data submitted by air carriers, the total screening percentage of cargo transported on flights of passenger aircraft arriving into the United States from international locations during this reporting period is 85 percent by weight.

2) Alternative security measures are applied to cargo shipments that may be damaged or compromised if TSA's customary screening methods are employed. These types of cargo shipments may include but are not limited to the following: human remains, medical shipments, live animals, diplomatic pouches, etc. Cargo subject to alternative security measures is "screened" within the definition of screening in the *Implementing Recommendations of the 9/11 Commission Act of 2007* (44901(g)(5)) and does count toward the 100-percent mandate. TSA allows cargo handled by way of alternative security measures to be accepted for transport on a passenger or all-cargo aircraft. For cargo uplifted on flights of passenger aircraft originating in the United States/territories, the total volume of cargo screened includes cargo screened using approved screening measures, as well as cargo handled by way of alternative security measures.

3) Air cargo screening statistics linked to Indirect Air Carriers (IACs), shippers, and other entities certified by TSA to screen cargo for uplift on domestic passenger flights. These Certified Cargo Screening Facilities (CCSFs) report cargo screening data to TSA pursuant to their program requirements. During this period, 550 CCSF-IACs were required to screen cargo. The total weight of shipments uplifted on flights originating within the United States/territories screened by CCSF-IACs was 406,227,721 pounds, while the total number of MAWBs of shipments uplifted on flights originating within the United States/territories screened by CCSF-IACs during this period was 392,286.

[1] Calculations of reported data show that 99.9 percent of the cargo shipments (MAWBs) and weight were screened in July, August, and September 2011. TSA is addressing the less than 0. percent rate of non-compliance.

4) During this reporting period, TSA collected data from air carriers during the months of July, August, and September 2011. These statistics indicate that 734,807,056 pounds of air cargo entered the United States aboard passenger aircraft and that 627,919,744 pounds or 85 percent of total cargo were screened before uplift from Last Point of Departure (LPD) flights into the United States.

SENSITIVE SECURITY INFORMATION

Air Cargo Screening Statistics
Fourth Quarter Fiscal Year 2011

Table of Contents

I. Legislative Language

TSA respectfully submits the Fourth Quarter FY 2011 "Air Cargo Screening Statistics" report pursuant to Section 1101(a)(3) of the *FY 2011 Full-Year Continuing Appropriations Act* (P.L. 112-10), which continued in effect the reporting requirement of the *FY 2010 DHS Appropriations Act* (P.L 111-83), Section 514(b):

> Not later than 45 days after the end of each quarter, the Assistant Secretary shall submit to the Committees on Appropriations of the Senate and the House of Representatives a report on air cargo inspection statistics by airport and air carrier detailing the incremental progress being made to meet the requirement of section 44901(g)(2)(B) of title 49, United States Code.

II. Background

The *FY 2010 DHS Appropriations Act* (P.L. 111-83), Section 514(b) requires TSA to report quarterly to the Committees on Appropriations of the Senate and the House of Representatives "on air cargo screening statistics by airport and air carrier detailing tbe incremental progress being made to meet the requirement of section 44901(g)(2)(B) of title 49, United States Code." The reporting requirement is continued by operation of Section 1101(a)(3) of the *FY 2011 Full-Year Continuing Appropriations Act* (P.L. 112-10).

To implement this congressional mandate, TSA updated air carrier security programs to require air carriers to submit cargo statistics monthly for TSA's report to Congress. Other measures implemented by TSA through its regulatory authorities to meet the 100-percent screening requirement for cargo transported on passenger aircraft mandated by the *Implementing Recommendations of the 9/11 Commission Act of 2007* (P.L. 110-53) included the requirement to screen 100 percent of cargo loaded on passenger aircraft at smaller commercial Category II–IV airports throughout the United States. TSA also mandated 100-percent screening of cargo identified as elevated risk within the U.S. air cargo supply chain and required that sensitive cargo be subject to alternative security measures. In October 2008, TSA mandated the screening of 100 percent of cargo placed on narrow body aircraft departing any commercial airport within the United States and its territories.

In May 2010, TSA increased the required screening percentages for cargo transported on flights of passenger aircraft departing to the United States from international locations and required air carriers to report total inbound weight uplifted and weight screened. The increased screening requirements now include: 100 percent on narrow body aircraft, 100 percent of all loose shipments (those not tendered on skids), and 15 percent of shipments configured on skids, per flight.

On August 1, 2010, TSA required air carriers to ensure that 100 percent of cargo be screened before uplift on any passenger aircraft flight originating within the United States.

III. TSA Air Cargo Screening Statistics Report

A. Fourth Quarter FY 2011 Screening Summary

Pursuant to the reporting requirement set forth in P.L. 112-10, TSA hereby submits air cargo screening data for the fourth quarter of FY 2011. Air carrier data for July, August, and September 2011 data show that 100 percent screening of cargo transported on flights of passenger aircraft originating within the United States was screened in accordance with the *Implementing Recommendations of the 9/11 Commission Act of 2007* (P.L. 110-53).[2]

Cargo Uplifted on Flights Originating Within the United States and Territories[3]

Month	Pct. MAWB Screened	Pct. Weight Screened (lbs)[4]
July 2011[1]	100%	100%
August 2011[1]	100%	100%
September 2011[1]	100%	100%
Q4 FY 2011 Total	100%	100%
Q3 FY 2011 Total	100%	100%
Q2 FY 2011 Total	100%	100%

Cargo Uplifted on Inbound Flights Originating Outside the United States and Territories

Month	Weight Uplifted (lbs)	Weight Screened (lbs)[2]	Pct. Weight Screened (lbs)
July 2011	253,378,938	217,661,663	86%
August 2011	233,871,232	201,034,425	86%
September 2011	247,556,886	209,223,656	85%
Q4 FY 2011 Total	734,807,056	627,919,744	85%
Q3 FY 2011 Total	730,558,164	635,711,999	87%
Q2 FY 2011 Total	701,864,870	591,761,885	84%

[2] Calculations of reported data show that 99.9 percent of the cargo shipments (MAWBs) and weight were screened in July, August, and September 2011. TSA is addressing the less than 0.1 percent rate of non-compliance.

[3] The amount of cargo screened includes sensitive cargo subject to Alternative Security Measures.

[4] Please see table on Page 4 for quantities of weight screened.

B. Domestic Air Carrier Statistics – All Airports

Air carriers operating domestically reported cargo screening data to TSA pursuant to their security programs. Industry data from July, August, and September 2011 show that 100 percent of cargo transported on passenger aircraft originating within the United States was screened in accordance with P.L. 110-53. A summary of these statistics follows.

Cargo Uplifted on Flights Originating Within the United States and Territories[5]

Month	No. of MAWB Uplifted	Weight Uplifted (lbs)	No. of MAWB Screened[6]	Weight Screened (lbs)[5]
July 2011	432,906	280,408,417	432,906	280,408,417
August 2011	447,075	278,120,134	447,075	278,120,134
September 2011	445,215	283,912,420	445,215	283,912,420
Q4 FY 2011 Total	1,325,196	842,440,971	1,325,196	842,440,971
Q3 FY 2011 Total	1,371,568	851,243,345	1,371,568	851,243,345
Q2 FY 2011 Total	1,294,432	813,888,249	1,294,266	813,667,633
Q4 FY2011 Total **100 percent of MAWB screened** **100 percent of weight screened**				

[5] Any differences between the reported No. of MAWB uplifted and MAWBs screened is the rate of non-compliance, which is less than 0.1 percent. TSA is addressing this non-compliance. These data include screening as reported from Category X, I, II, III, and IV airports.

[6] Cargo screened includes sensitive cargo subject to Alternative Security Measures.

Cargo Screening Distribution for July, August, and September 2011

(b)(3):49 U.S.C. § 114(r)

C. Domestic Certified Cargo Screening Program

IACs, shippers, and other entities screening cargo for uplift on domestic passenger flights as CCSFs also reported cargo screening data to TSA pursuant to their program/order requirements. A summary of these data follows. These numbers are included in cargo data reported by air carriers.

CCSF-IAC Shipments Uplifted on Flights Originating Within the United States and Territories

Month	No. of IACs Required to Screen[7]	No. of MAWB Screened	Weight Screened (lbs)
July 2011	550	131,945	133,333,521
August 2011	550	136,668	141,010,858
September 2011	550	123,673	131,883,342
Q4 FY 2011 Total	550	392,286	406,227,721
Q3 FY 2011 Total	550	370,174	403,955,443
Q2 FY 2011 Total	557	287,317	364,048,222

CCSF (Non-IAC) Shipments Uplifted on Flights Originating Within the United States and Territories

Month	No. of Non-IACs Required to Screen[8]	No. of House Air Way Bills Screened	Weight Screened (lbs)
July 2011	601	162,485	32,539,540
August 2011	622	210,754	33,348,176
September 2011	625	186,517	34,321,854
Q4 FY 2011 Total	625	559,756	100,209,570
Q3 FY 2011 Total	608	760,418	96,180,542
Q2 FY 2011 Total	618	646,493	82,401,425

[7] IACs must screen 90 days after certification. The data collected for the *No. of CCSF IACs Required to Screen* in this table is for each facility. Under this column, the figure reported in *Q4 FY 2011 Total* represents a total of the number of facilities that are required to screen cargo at the end of the quarter; whereas, the figures associated with each month represent a total of the number of facilities that are required to screen cargo as of that month.

[8] Non-IAC CCSFs must screen 90 days after certification. The data collected for the *No. of CCSFs (Non-IACs) Required to Screen* in this table is for each facility. Under this column, the figure reported in *Q4 FY 2011 Total* represent a total of the number of facilities that are required to screen cargo at the end of the quarter; whereas, the figures associated with each month represent a total of the number of facilities that are required to screen cargo as of that month.

D. International Last Point of Departure Screened Cargo

Effective May 1, 2010, both domestic and foreign air carriers operating in international locations with an LPD flight into the United States must report cargo screening data to TSA pursuant to their security programs. Accordingly, air carriers submitted data for July, August, and September 2011.

These industry statistics indicate that 734,807,056 pounds of air cargo entered the United States aboard passenger aircraft and indicate that 627,919,744 pounds or 85 percent of total cargo were screened before uplift from an LPD into the United States. However, in subsequent discussions with industry, it became apparent that all carriers may not have been including transfer cargo or mail in their reports. TSA is working with industry to clarify reporting requirements.

International Inbound (LPDs into the United States)

Month	Weight Uplifted (lbs)	Weight Screened (lbs)[9]	Pct. Weight Screened (lbs)
July 2011	253,378,938	217,661,663	86%
August 2011	233,871,232	201,034,425	86%
September 2011	247,556,886	209,223,656	85%
Q4 FY 2011 Total	734,807,056	627,919,744	85%
Q3 FY 2011 Total	730,558,164	635,711,999	87%
Q2 FY 2011 Total	701,864,870	591,761,885	84%
Q4 FY2011 **85 percent of weight screened**			

[9] Weight screened in pounds includes sensitive cargo subject to Alternative Security Measures.

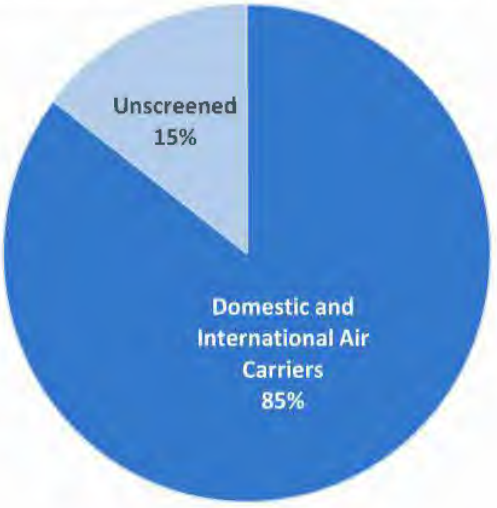
July, August, and September 2011 Screening Statistics for LPD flights

Volume (lbs)

Of approximately 735 million pounds of air cargo entering the United States, industry data indicate that 85 percent is screened by weight

Screening Distribution by Pounds Uplifted

Source: TSA Inbound Air Cargo Screening Statistics, Q4 FY 2011



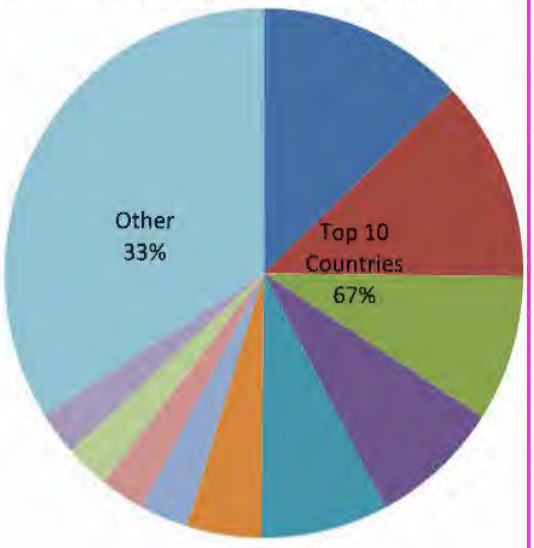
Number of Countries

86 countries were last points of departure for inbound air cargo

Screened Cargo Volume (lbs) by Last Point of Departure Countries

Based on total screened at all LPD airports.

Source: **TSA Inbound Air Cargo Screening Statistics, Q4 FY 2011**



(b)(3):49 U.S.C. § 114(r)

IV. Appendices

A. Cargo Screening Data by Cat X, I Airports and Air Carrier

BY AIRPORT CATEGORY X, I, AND AIR CARRIERS
TSA CARGO SCREENING RESULTS ON 100 PERCENT REPORTING BY PASSENGER AIR CARRIERS
Record Date: November 16, 2011

DEPARTING FROM U.S. LOCATIONS
Reporting Period: FY 2011 Q4 (July, August, and September 2011)

Cat X,I Compliance	Total Uplifted	Total Screened*	Percent Screened
# Of MAWB	1,250,932	1,250,932	100%
Cargo Weight (lbs)	832,507,154	832,507,154	100%

Data were calculated on the basis of the requirement to screen 100 percent of cargo placed on passenger aircraft effective on August 1, 2010.

Note: Figures in this chart have been rounded; therefore, column totals may not equal the sum of the numbers displayed in each column.
*Number of MAWB and weight screened includes sensitive cargo subject to Alternative Security Measures

Summary of Q4 Data Sorted by cargo weight uplifted (lbs) and view of the top five airports and carriers with subtotals displayed.	MAWB Uplifted	Weight Uplifted (lbs)	MAWB Screened*	Weight Screened (lbs)*	Percent of MAWB Screened (%)*	Percent of Weight Screened (%)*
Grand Total	**1,250,932**	**832,507,154**	**1,250,932**	**832,507,154**	**100.00%**	**100.00%**

Airport Code	Airport Name	State	Carrier Name	MAWB Uplifted	Weight Uplifted (lbs)	MAWB Screened*	Weight Screened (lbs)*	Percent of MAWB Screened (%)*	Percent of Weight Screened (%)*

(b)(3):49 U.S.C. § 114(r)

Airport Code	Airport Name	State	Carrier Name	MAWB Uplifted	Weight Uplifted (lbs)	MAWB Screened*	Weight Screened (lbs)*	Percent of MAWB Screened (%)*	Percent of Weight Screened (%)*

(b)(3):49 U.S.C. § 114(r)

Airport Code	Airport Name	State	Carrier Name	MAWB Uplifted	Weight Uplifted (lbs)	MAWB Screened*	Weight Screened (lbs)*	Percent of MAWB Screened (%)*	Percent of Weight Screened (%)*

(b)(3):49 U.S.C. § 114(r)

Airport Code	Airport Name	State	Carrier Name	MAWB Uplifted	Weight Uplifted (lbs)	MAWB Screened*	Weight Screened (lbs)*	Percent of MAWB Screened (%)*	Percent of Weight Screened (%)*

(b)(3):49 U.S.C. § 114(r)

Airport Code	Airport Name	State	Carrier Name	MAWB Uplifted	Weight Uplifted (lbs)	MAWB Screened*	Weight Screened (lbs)*	Percent of MAWB Screened (%)*	Percent of Weight Screened (%)*

(b)(3):49 U.S.C. § 114(r)

B. International Inbound Cargo Screening Data by Country and Air Carrier

BY COUNTRY AND AIR CARRIERS
TSA INTERNATIONAL INBOUND CARGO SCREENING RESULTS ON 100% REPORTING BY PASSENGER AIR CARRIERS
Record Date: November 16, 2011

DEPARTING FROM NON-US LOCATIONS
Reporting Period: FY2011 Q4 (July, August, and September 2011)

Note: Figures in this chart have been rounded; therefore, column totals may not equal the sum of the numbers displayed in each column.
*Weight screened in pounds includes sensitive cargo subject to Alternative Security Measures.

Summary of Q4 Data Sorted by cargo weight uplifted (lbs) and view of the top five countries and carriers with subtotals displayed.	Weight Uplifted (lbs)	Weight Screened (lbs)*	Percent of Weight Screened (%)*
Grand Total	734,807,056	627,919,744	85.45%

Country	Carrier Name	Weight Uplifted (lbs)	Weight Screened (lbs)*	Percent of Weight Screened (%)*
		Data		

(b)(3):49 U.S.C. § 114(r)

Country	Carrier Name	Weight Uplifted (lbs)	Weight Screened (lbs)*	Percent of Weight Screened (%)*
		Data		

(b)(3):49 U.S.C. § 114(r)

Country	Carrier Name	Weight Uplifted (lbs)	Weight Screened (lbs)*	Percent of Weight Screened (%)*

(b)(3):49 U.S.C. § 114(r)

Country	Carrier Name	Weight Uplifted (lbs)	Weight Screened (lbs)*	Percent of Weight Screened (%)*

(b)(3):49 U.S.C. § 114(r)

Air Cargo Fiscal Year 2013 Expenditure Plan

Fiscal Year 2013 Report to Congress

December 6, 2012

Homeland Security

Transportation Security Administration

Message from the Administrator

December 6, 2012

I am pleased to present the following "Air Cargo Fiscal Year 2013 Expenditure Plan," prepared by the Transportation Security Administration (TSA). This plan is being submitted pursuant to the *Fiscal Year* (FY) *2013 Continuing Appropriations Resolution* (P.L. 112-175; CR).

This expenditure plan identifies the purposes for which the funds appropriated under the CR will be used, and specifies the initiatives that will fulfill the air cargo requirements of the *Implementing Recommendations of the 9/11 Commission Act of 2007* (P.L. 110-53; 9/11 Act).

In accordance with congressional requirements, this report is provided to the following Members of Congress:

The Honorable Robert B. Aderholt
Chairman, House Appropriations Subcommittee on Homeland Security

The Honorable David E. Price
Ranking Member, House Appropriations Subcommittee on Homeland Security

The Honorable Mary L. Landrieu
Chairman, Senate Appropriations Subcommittee on Homeland Security

The Honorable Daniel Coats
Ranking Member, Senate Appropriations Subcommittee on Homeland Security

If I may be of further assistance, please do not hesitate to contact me or the TSA Office of Legislative Affairs at (571) 227-(b)(6) or the Department's Chief Financial Officer, Peggy Sherry, at (b)(6)

Sincerely yours,

John S. Pistole
Administrator

Executive Summary[1]

The *Aviation and Transportation Security Act* (P.L. 107-71) established TSA and, among other things, designated the TSA Administrator as being responsible for security in all modes of transportation, including civil aviation security.

Section 1602 of the 9/11 Act requires "the Secretary [of Homeland Security] to establish a system to screen 100 percent of cargo transported on passenger aircraft operated by an air carrier or foreign air carrier in air transportation or intrastate air transportation to ensure the security of all such passenger aircraft carrying cargo."[2] This mandate includes air cargo transported on passenger aircraft departing U.S. airports (domestic air cargo) and air cargo transported on passenger aircraft destined for U.S. airports operating from foreign last point of departure (LPD) airports (international inbound air cargo). The 9/11 Act further requires that the system provide a level of security commensurate with the level of security for the screening of passenger-checked baggage by August 2010.

TSA's approaches for securing domestic and international inbound air cargo work in tandem to create a system in which 100 percent of cargo is screened before loading on passenger aircraft originating at airports in the United States and destined for the United States from international LPD airports. TSA and the air cargo industry met the 100-percent mandate for domestic uplift on August 3, 2010 and met the 100-percent mandate for international inbound air cargo on December 3, 2012. Beyond the 9/11 Act mandate, TSA continues to collaborate with U.S. Customs and Border Protection (CBP) and other relevant entities to enhance capabilities to identify and target bigh-risk or "non-trusted" shipments for enhanced screening.

Domestic. On August 3, 2010, DHS and the air cargo industry successfully met the 100-percent screening deadline for domestic uplift of air cargo through the implementation of the Certified Cargo Screening Program (CCSP) and other supporting security measures.

- *CCSP*: Under the CCSP, TSA-certified entities conduct cargo screening throughout the air cargo supply chain. The distribution of screening to a variety of off-airport locations allows industry to screen air cargo at earlier stages in the supply chain, mitigating potential bottlenecks at airports that could impede the flow of commerce.
- *Other Security Measures*: TSA continues to secure the domestic supply chain through the issuance of security programs, the use of TSA-certified, explosives-detection, canine teams; the enforcement of compliance requirements; and the increase in authorized air cargo screening technologies.

[1] The amount shown in the Air Cargo Expenditure Plan reflects the estimate shown in the TSA continuing resolution apportionment for the FY 2013 continuing resolution period of October 1, 2012, through March 27, 2013, as well as available carryover funding.
[2] 49 U.S.C. § 44901(g)(1).

International Inbound. Under TSA's approach for international inbound cargo, industry is required to screen 100 percent of international inbound air cargo transported on passenger aircraft as of December 3, 2012. Key components of this approach include:

- *Risk-Based Screening Processes.* TSA issued changes to the air carrier Standard Security Programs (SSPs), effective June 15, 2012, that required 100-percent screening of international inbound air cargo transported on passenger aircraft by December 3, 2012. The changes to the SSPs also incorporated risk-based, tiered screening protocols for "trusted" and "non-trusted" shippers on the basis of established criteria related to the shipper's business relationships with air carriers and international freight forwarders, as well as shipper history, including volume and frequency of shipments. All cargo must be screened in accordance with the 9/11 Act cargo screening requirements. Shipments from shippers that are determined to meet the Trusted Shipper criteria are permitted to be screened in a variety of cargo configurations, including skid-level cargo, using all approved screening methods, whereas shipments from a "non-trusted" shipper must be screened at the piece-level using enhanced screening protocols.
- *Air Cargo Advance Screening (ACAS) Pilot.* Looking forward, TSA seeks to enhance the identification of high-risk shipments on the basis of an analysis of pre-departure data on air cargo shipments. Under the ACAS pilot, a joint TSA-CBP initiative, CBP's Automated Targeting System (ATS) assesses data on the shipper and the shipment for risk before the cargo is transported on the aircraft, enabling TSA-CBP to identify non-trusted or high-risk shipments that require enhanced screening.
- *National Cargo Security Program (NCSP).* NCSP recognition leverages foreign government security programs whose security measures TSA has determined meet or exceed current U.S. air cargo supply chain security standards, including the type of technology used to conduct the screening, the amount of cargo screened, and the processes used to resolve issues identified. These efforts will reduce any unnecessarily redundant security measures while ensuring screening and a high level of security for cargo shipments inbound to the United States.

TSA plans to use FY 2012 carryover funding and funding available under the CR (P.L. 112-175) to finance the following program initiatives:

- Air Cargo Screening Program;
- Canine teams at high-volume cargo airports and throughout the supply chain;
- U.S. and international air cargo inspectors at high-volume, high-risk airports; and
- Air cargo and mail-screening technologies.

Air Cargo Fiscal Year 2013 Expenditure Plan

Table of Contents

I. Legislative Language

This document responds to the reporting language set forth in Section 116(a) of the *FY 2013 Continuing Appropriations Resolution* (P.L. 112-175).

> Not later than 30 days after the date of the enactment of this joint resolution, each department and agency in subsection (c) shall submit to the Committees on Appropriations of the House of Representatives and the Senate, for the period through the date specified in section 106(3) of this joint resolution, a spending, expenditure, or operating plan …
>
> (2) as applicable, at any greater level of detail required for funds covered by such a plan in an appropriations Act referred to in section 101, in the joint explanatory statement accompanying such Act, or in committee report language incorporated by reference in such joint explanatory statement.

II. Background

The 9/11 Act requires "the Secretary [of Homeland Security] to establish a system to screen 100 percent of cargo transported on passenger aircraft," including both domestic and international inbound air cargo, to provide a level of security commensurate with the level of security for the screening of passenger-checked baggage by August 2010.[3] To facilitate compliance with this requirement, the 9/11 Act provides an intermediate requirement of 50-percent screening by February 2009, which industry met for both domestic air cargo and international inbound air cargo. On August 1, 2010, the air cargo industry successfully met the 100-percent screening deadline for domestic air cargo. On December 3, 2012, the air cargo industry successfully met the 100-percent screening deadline for international inbound air cargo transported on passenger aircraft.

Since FY 2008, TSA has explored and implemented several initiatives to establish a system for 100-percent screening of domestic air cargo transported on passenger aircraft, as well as to facilitate the industry's capability to comply with these requirements and meet interim milestones. These initiatives include: (1) SSP requirements, (2) the CCSP, and (3) canine screening.

In FY 2013, TSA will focus air cargo resources toward ensuring continued compliance with the 100-percent screening requirement for domestic and international inbound air cargo transported on passenger aircraft by:

- Continuing to require the screening of 100 percent of international inbound air cargo transported on passenger aircraft;
- Continuing to require 100-percent screening of international inbound air cargo transported on all-cargo aircraft identified as high-risk;
- Expanding NCSP engagement and outreach to the governments of foreign countries to evaluate air cargo and mail security protocols to determine if such programs provide a level of security commensurate with current U.S. air cargo supply chain security requirements and, thus, whether they may be recognized by TSA for implementation by affected air carriers;
- Implementing all phases of the ACAS pilot for pre-departure risk assessment of international inbound air cargo, before loading the cargo on aircraft bound for the United States;
- Testing, evaluating, and qualifying new and existing technologies capable of, and appropriate for, screening specific commodities; and

[3] 49 U.S.C. § 44901(g).

- Continuing outreach to stakeholders to better align global air cargo security standards and advance the "supply chain" approach toward securing international air cargo on passenger aircraft.

III. Expenditure Plan

A. Total Requested Spending

The following table provides TSA's proposed allocation of $67.0 million in accordance with language in P.L. 112-175. The table outlines the appropriated amounts under the FY 2013 CR and includes the FY 2012 Carryover.

Total Available FY 2013 Funds (through March 27, 2013)

Available Funds	Amount
FY 2013 Continuing Resolution	$58.8 million
FY 2012 Carryover	$8.2 million
Total	**$67.0 million**

Funding from the FY 2013 CR and FY 2012 Carryover will be allocated to enhance several key elements of TSA's multi-layered approach for achieving 100-percent screening of air cargo flown on passenger aircraft. A breakdown of this funding is as follows:

Allocation of FY 2013 Continuing Resolution and FY 2012 Carryover Funds

Activity	Planned Expenditures	Detailed Breakdown in Paragraph
Air Cargo Screening Program	$16.9 million	III.B.
Canine Teams at High-Volume Cargo Airports and throughout the Supply Chain	$12.6 million	III.C.
Domestic and International Air Cargo Inspectors (563) at High-Volume, High-Risk Airports	$32.8 million	III.D.
Air Cargo and Mail Screening Technology Testing	$4.7 million	III.E.
Total	**$67.0 million**	

B. Air Cargo Screening Program

100-Percent Domestic Screening

To satisfy the domestic air cargo screening requirements of the 9/11 Act, TSA implemented screening programs for cargo originating at U.S. locations that enable cargo screening to be conducted throughout the supply chain by TSA-approved aircraft operators, Indirect Air Carriers (IACs), and shippers.

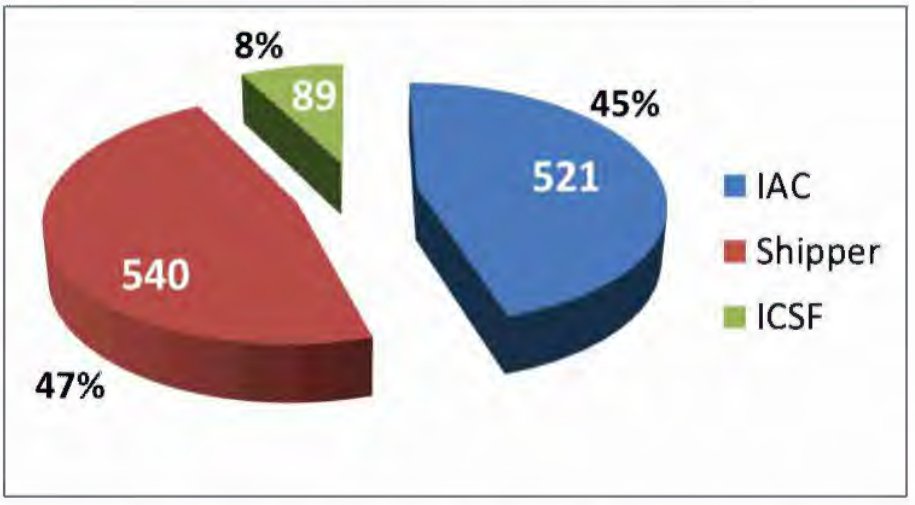
TSA's approach to accomplish the screening mandate for domestic air cargo was achieved by:

- Implementing security program revisions to require 100-percent screening of cargo transported on narrow-body aircraft by October 1, 2008; 50-percent domestic screening by February 1, 2009; 75-percent domestic screening by May 1, 2010; and 100-percent domestic screening no later than August 1, 2010;
- Creating, in 2008, the CCSP, which allows entities such as shippers, manufacturers, Indirect Air Carriers (IACs) to screen cargo at different points along the air cargo secure supply chain, before tendering to an air carrier for transport on passenger aircraft;
- Publishing on September 16, 2009, an Interim Final Rule (IFR) that established the CCSP and, on August 18, 2011, the Air Cargo Screening Final Rule, which carried forth the framework for the CCSP and made a few changes in the requirements from the IFR; and,
- Approving additional air cargo screening technologies for use by industry.

CCSP

TSA's CCSP continues to play an integral role in ensuring compliance with the 100-percent screening mandate domestically, enabling TSA-certified IACs, shippers, and Independent Cargo Screening Facilities (ICSFs) to screen cargo along the supply chain. As of September 2012, 1,150 program participant locations were certified by TSA as Certified Cargo Screening Facilities (CCSFs) under the CCSP, including 521 IACs, 540 shippers, and 89 ICSFs.

CCSP Entities by Type, September 2012



CCSFs are required to he recertified every 36 months. The recertification process for initial program participants certified at the end of 2008 has been under way for more than a year, with over 400 locations recertified to date. More than 95 percent of facilities eligible for recertification as CCSFs have elected to have TSA recertify their screening operations for another 36 months. During FY 2013, TSA will continue to review and certify applicants and maintain oversight of the program to ensure the continuation of a robust and quality CCSP.

100-Percent International Inbound Screening

The scope and nature of the 100-percent screening requirement present significant challenges within the international air cargo environment. Currently, cargo is transported on passenger aircraft from 152 international LPD airports to the United States, with nearly 500 air carrier stations involved in these operations.

Industry partners recommended through multiple forums, including the DHS Air Cargo Security Working Group sessions, that a risk-based approach was the best way to achieve the 100-percent screening requirement for international inbound air cargo transported on passenger aircraft. TSA's risk-based approach for screening international inbound air cargo requires the highest risk cargo shipments to undergo the most stringent security screening.

Through updates to the air carrier SSPs, which incorporate the Trusted Shipper concept, all international inbound air cargo transported on passenger aircraft, as of December 3, 2012, is screened at 100 percent, in accordance with the 9/11 Act requirements for screening cargo. Under the Trusted Shipper concept, TSA has established criteria (including shipper history, volume, address, frequency of shipments, and consistency of commodity types) to determine a shipper's status as "trusted" or "non-trusted" on the basis of the shipper's business relationships

with air carriers and freight forwarders. A shipper's status will dictate the type of screening procedures to be applied to the shipment for transport on either all-cargo or passenger aircraft. Shippers who have a "non-trusted" status are considered "high risk," and their shipments are subject to enhanced security-screening protocols.

Given that the risks associated with all-cargo aircraft are different, TSA's strategies for screening cargo transported on passenger aircraft versus all-cargo aircraft inbound to the United States differ slightly. Although all-cargo air carriers are not subject to the 100-percent screening requirements of the 9/11 Act, all cargo determined to be high risk, on the basis of a review of information about the shipper and the shipment, must undergo the most stringent screening protocols before being loaded for transport on both passenger and all-cargo aircraft. TSA is prioritizing air carrier inspections at the highest risk international locations and pursuing Special Emphasis Inspections (SEIs) at U.S. locations to validate international inbound screening compliance.

TSA's risk-based approach to enable industry to achieve the 100-percent screening mandate for international inbound passenger air cargo includes two key components:

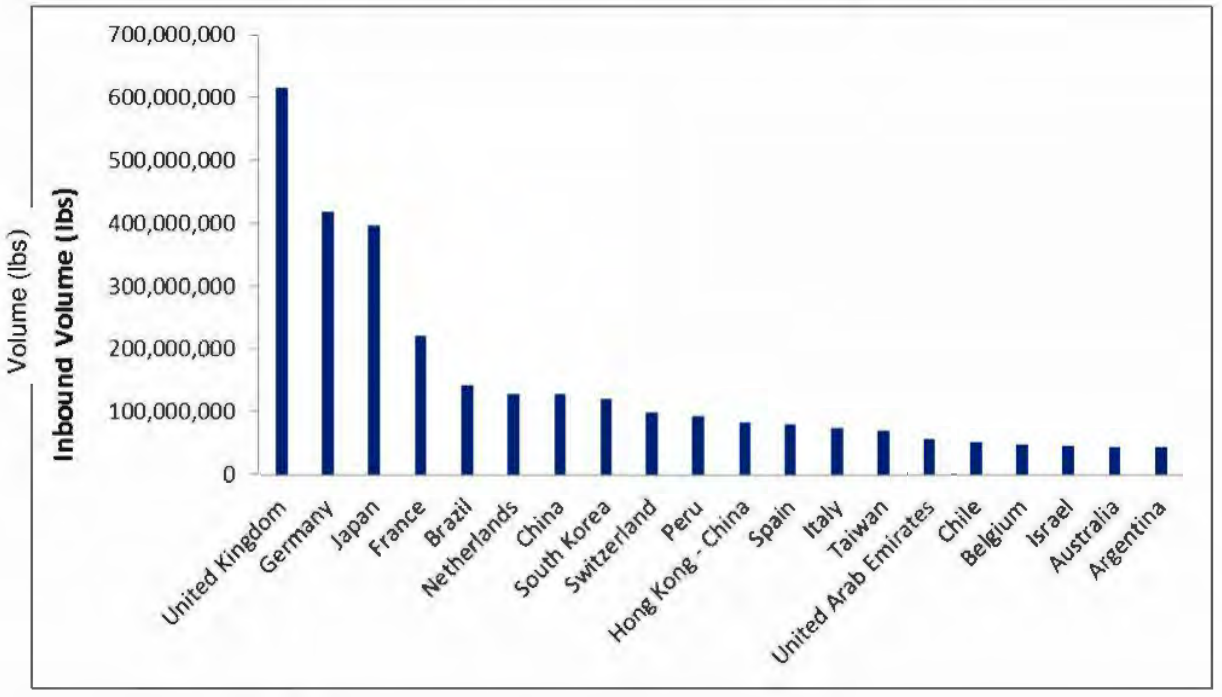
- *SSPs*:
    - TSA has revised the SSPs to require 100-percent screening of international inbound air cargo under its risk-based approach. TSA incorporated into these revisions the Trusted Shipper concept, originally set forth in the May 2011 security directives (SDs) and emergency amendments (EAs) issued in response to the attempt to conceal explosives in all-cargo aircraft bound for the United States. TSA now requires that a fixed number of shipments per month deemed to be "trusted" under the Trusted Shipper concept be randomly screened using enhanced screening protocols.
    - Industry comments were adjudicated in April 2012, and the revised SSPs were finalized and released to industry on May 16, 2012, with an effective date of June 15, 2012. Under the revised SSPs, industry must screen 100 percent of international inbound air cargo.
- *NCSP Recognition*:
    - Under its NCSP recognition process, TSA conducts a comprehensive review to assess whether a foreign government's air cargo security program is commensurate with or exceeds current U.S. standards for air cargo security. TSA is primarily focusing on those countries with a significant volume of air cargo inbound to the United States, while also considering additional factors for country prioritization, such as number of airports in the country from which cargo originates and criticality of the country as a transshipment point for significant volumes of cargo destined for the United States.

NCSP recognition will reduce the burden on air carriers by eliminating unnecessary duplicative requirements between the two countries' security programs, while ensuring the screening of, and high level of security for, air cargo bound for the United States. In addition, NCSP recognition enables TSA to leverage the host government's oversight capabilities to verify air carrier screening operations and data.

- On June 1, 2012, TSA and the European Commission (EC) established mutual recognition of their respective air cargo security regimes under the NCSP recognition program. This recognition involved a thorough evaluation of the air cargo security requirements of EC regulations and included site visits to eight European Union (EU) Member States and Switzerland, countries which accounted for approximately 49 percent of the air cargo volume (by weight) bound for the United States. TSA has issued the programmatic requirements to allow air carriers operating at EU Member State airports to implement these requirements for flights to the United States. In addition to the 27 Member States of the EU and Switzerland, TSA currently recognizes the NCSPs of Canada, New Zealand, Australia, Israel, and Japan.

- As of December 3, 2012, in addition to the 33 countries' NCSPs formally recognized by TSA, another 6 countries were being evaluated or were implementing the recommendations resulting from the on-site reviews. The priorities for NCSP outreach also have expanded to include those countries from which a high volume of air cargo originates, such as China.

Top 20 Countries by International Inbound Volume



Source: 2011 Bureau of Transportation Statistics

- As part of NCSP review and recognition, TSA assesses a foreign country's postal security requirements to determine comparability with current U.S. requirements for international air mail screening. Under TSA SSPs, international (non-U.S.) mail is considered cargo and must be screened in accordance with the standards established under the 9/11 Act. TSA continues to make progress engaging international stakeholders by incorporating mail security requirements as part of the NCSP recognition process. The NCSP process includes discussions with appropriate authorities, such as designated postal operators, who administer the security measures for the international mail supply chain.

ACAS

In FY 2012, TSA and CBP expanded the ACAS pilot, which was initiated in FY 2011 to explore the feasibility of collecting pre-departure information on international inbound air cargo and of assessing the risk of that cargo. TSA and CBP have set up a joint targeting effort at the National Targeting Center-Cargo (NTC-C), which utilizes CBP's ATS. Participants in the pilot include express all-cargo, passenger, and heavy all-cargo aircraft operators, as well as international freight-forwarders. The pilot is being conducted in a multi-phased approach, allowing for the

refinement of targeting methodologies and the establishment of appropriate communication systems to enable pre-departure air cargo data collection and response. Under the Trusted Shipper Program, the air carrier determines whether the shipper is "trusted" on the basis of a validation that the shipper meets TSA's established criteria. Once ACAS is fully implemented, TSA and CBP will make a determination on Trusted Shipper status and enhanced screening requirements by assessing the data submitted by the carrier or participant using risk concepts developed in CBP's ATS.

In FY 2013, the ACAS pilot will be further expanded to additional industry participants. TSA and CBP will work to fully automate the operational messaging that determines the appropriate level of screening for given shipments through incorporation of TSA's Trusted Shipper concept into the pilot's comprehensive risk assessment model. CBP intends to release a Notice of Proposed Rulemaking for data submissions, and TSA will work toward issuing revised security programs to implement risk-based tiered screening protocols.

Third-Party Explosives Detection Canine (EDC) Pilot

- In FY 2012, TSA worked to assess the implementation of a third-party EDC program that would leverage private-sector resources by enabling the certification and use of third-party (private) canines determined by the agency to meet TSA standards for canine screening of air cargo. From January through August 2011, TSA conducted the Third-Party EDC Pilot to: (1) evaluate whether industry canine teams could meet TSA standards, including 9/11 Act requirements, for canine screening of air cargo; (2) establish and assess the TSA standards and processes necessary for program implementation; and (3) determine the TSA resource requirements that would be required for program implementation. Through the pilot, TSA identified numerous requirements and challenges for the implementation of a third-party EDC program, such as industry's need to access appropriate explosives for canine training and testing, TSA oversight required for explosives handling for canine training, and the operational mechanics and resource requirements for certification and evaluation of third-party canine teams by TSA on a nationwide scale.

- In FY 2013, TSA will work with its federal partners and the air cargo industry to address the issues identified through the pilot and will evaluate a variety of options to determine the best and most feasible path forward.

All-Cargo Screening

In response to the October 2010 attempt to conceal explosives in shipments aboard all-cargo aircraft bound for the United States from Yemen, TSA issued SDs and EAs, which, among other measures, required enhanced screening of "non-trusted" international inbound air cargo transported on all-cargo aircraft. TSA is revising the all-cargo SSPs to include the enhanced

screening protocols for cargo transported on all-cargo aircraft, established through the post-Yemen SDs and EAs.

Information Technology (IT) Systems

TSA will continue to maintain, develop, and improve its IT systems used to implement and manage regulatory requirements for its Air Cargo Screening Program, including: the Cargo Reporting Tool (CRT); the Known Shipper Management System (KSMS); and the Indirect Air Carrier Management System (IACMS).

- CRT enables CCSFs to submit monthly cargo screening data to demonstrate compliance with the 100-percent screening mandate. In FY 2012, TSA established full access to CRT for all air carriers, implemented functionality that enabled users to report for multiple facilities, and established additional enhancements to increase the reliability of data entered by users. In FY 2013, TSA plans to implement a series of usability and security enhancements, as well as additional reporting capabilities that will improve TSA's ability to evaluate and report data submitted.

- KSMS, which supports TSA's Known Shipper Program, provides a systematic approach to assess risks and determine the legitimacy of companies located in the United States whose cargo will be shipped on passenger aircraft. KSMS enables IACs and air carriers to electronically submit shipper data to TSA for review, and manages the repository of shippers for industry after they have been vetted and considered "known" by TSA. In FY 2012, on the basis of industry input, TSA added capability that enables IACs to submit custom shipper identification numbers to match records in KSMS with IAC shipper records. TSA also addressed KSMS usability issues and updated the appeal functions, allowing for faster processing times and more accurate review of appeals. In FY 2013, TSA plans to add capabilities to improve the vetting of shippers and enhance the ability for industry to make shippers "known," which is expected to decrease appeals. TSA also plans to deploy international record vetting to handle the submission of shippers from Canada or Mexico through KSMS, providing TSA additional oversight.

- IACMS provides industry the ability to submit applications to become certified and be recertified as an IAC as well as the ability to request Security Threat Assessments (STAs) for IAC personnel. IACMS processes approximately 150 new IAC applications and 350 certification renewals monthly. In FY 2012, TSA established an STA renewal process within IACMS, resolved usability and security-related issues, and added servers to handle the increase in submissions. In FY 2013, TSA will implement a number of user enhancements, many of which were recommended by industry, such as enhancements that would enable IAC agents to directly submit STAs, pay fees, and manage their STA plans.

TSA will continue to provide adjudication of STA results, facilitate redress processes, and vet the IAC, CCSP, and other TSA-regulated populations.

Standardized Cargo Screener Training Program

In November 2010, TSA updated CCSP training materials and made them available to industry in February 2011. These training materials provide the basic CCSP program training requirements for use by IACs, shippers, and ICSFs certified by TSA. This updated version of training materials has simplified training delivery with the goal of enhancing industry adoption of TSA-generated training material, as well as air cargo screening program knowledge retention and adherence to regulations/compliance. In June 2012, TSA streamlined the CCSP screening technology training, including modules in support of screening performed by aircraft operators and foreign air carriers. The training addresses the following areas of the SSPs:

- Facility Security Control;
- Chain of Custody;
- Improvised Explosive Device (IED);
- Physical Search;
- Securing Unit Load Device Pallets/Containers and Skids;
- Facility Security Coordinator Responsibilities;
- CCSF Employees' Qualifications; and
- Screening Technology – X-Ray/Advanced Technology (AT) X-ray, Explosives Detection Systems (EDSs), Electronic Metal Detection (EMD), and Explosives Trace Detection (ETD).

TSA is proactively conducting outreach to IACs, shippers, and ICSFs across the United States to provide information on and promote the use of standardized cargo screener training materials, which are designed to ensure that all air cargo personnel are aware of major threats to security and how to address them successfully.

Air Cargo Vulnerability Assessment Program

Through the Air Cargo Vulnerability Assessment Program, TSA assesses the air cargo supply chain nodes, all-cargo aircraft operators, passenger aircraft operators, IACs, known shippers, and authorized representatives for vulnerabilities using experienced TSA field and headquarters personnel. To date, TSA has conducted 2,687 air cargo supply chain facility assessments at all 28 Category X airports and 11 of the largest Category I airports. This represents nearly 100 percent of the volume of cargo handled by air carriers in the United States and approximately 80 percent of the volume of cargo handled by IACs and trucking companies in the United States. TSA will continue to conduct air cargo vulnerability assessments throughout the country at Category X and Category I airports representing the greatest volume of air cargo for both all-cargo and passenger flights. The overall results of the assessments will also be used to

evaluate TSA air cargo policies, create new air cargo security policies for enhanced and targeted security requirements and initiatives, and identify industry best practices. Additionally, the TSA Office of Inspections, Special Operations Division ensures the integrity and effectiveness of TSA's air cargo security programs and screening process by identifying vulnerabilities in the transportation systems through covert testing.

Allocation of FY 2013 Continuing Resolution and FY 2012 Carryover Funds

Detailed breakdown of allocation	FY 2013 ($ millions)	FY 2012 Carryover ($ millions)
Air cargo policy staff (57 full-time equivalents (FTEs)) to support policy and program development for 100-percent screening and vulnerability assessments and related legal and vetting services	$7.0	$0
Air cargo covert testing	$1.2	$0
Program management and IT support for development, enhancements, and operations and maintenance of screening subsystems	$8.7	$0
Subtotal	$16.9	$0
Total	**$16.9 million**	

C. Canine Teams at Airports and Throughout the Supply Chain

In the air cargo environment, TSA currently employs two types of canine teams to screen cargo destined for transport on passenger aircraft: teams led by local law enforcement officers (LEOs), and proprietary (federal) teams led by TSA cargo inspectors. As of September 2012, a total of 608 canine teams (488 local LEO-led canine teams and 120 authorized federal canine teams) are allocated to 79 airport locations throughout the United States.

Canine Team Locations (September 2012)

LEO Canine Teams

TSA uses 488 local LEO-led canine teams, (b)(3):49 U.S.C. § 114(r) of their time in the air cargo environment and associated facilities providing a law enforcement presence and screening air cargo.

Location and Number of LEO Canine Teams

Locations*	Team Numbers	Locations	Team Numbers	Locations	Team Numbers
ABQ	(b)(3):49 U.S.C. § 114 (r)	FLL	(b)(3):49 U.S.C. § 114(r)	PBI	(b)(3):49 U.S.C. § 114(r)
ACY		GSN		PDX	
ANC		GSO		PHL	
ATL		GUM		PHX	
AUS		HNL		PIT	
BDL		HPD (IAH & HOU)		PVD	
BGR		IND		ROC	
BHM		JAX		RNO	
BNA		LAS		RSW	
BOI		LAX		SAN	
BOS		LIT		SAT	
BUF		MCI		SDF	
BWI		MCO		SEA	
CLE		MEM		SFO	
CLT		MHT		SJC	
CMH		MIA		SJU	
COS		MKE		SLC	
CPD (ORD & MDW)		MSP		SMF	
CVG		MSY		SNA	
DAL		MWAA (IAD & DCA)		STL	
DAY		OAK		STT	
DEN		OMA		TPA	
DFW		ONT		TUL	
DTW		ORF		TUS	
ELP		PAPD (EWR, JFK & LGA)			
Grand total					**488**

*See Appendix A for Airport Codes – Canine Team Locations by Name

TSA Proprietary Canine Teams

TSA proprietary canine teams are primarily dedicated to screening air cargo at airports with a high volume of originating air cargo to enhance air cargo security. TSA has 120 authorized teams for deployment to airports. Although aircraft operators and CCSP participants are responsible for screening 100 percent of air cargo transported on passenger aircraft, these teams

are important additions to the screening program as an additional layer of security, providing random secondary screening to counter any insider threat.

As of January 2012, TSA has 120 authorized teams for deployment to the top 20 U.S. airports (ranked by passenger cargo volumes). As of June 2012, on the basis of low total cargo uplift numbers, the cargo canine FTEs at Luis Munoz Marin International Airport (SJU), Denver International Airport (DEN), Antonio B. Won Pat International Airport (GUM), Ted Stevens Anchorage International Airport (ANC), and Orlando International Airport (MCO) have been re-allocated to Dallas/Fort Worth International Airport (DFW), Los Angeles International Airport (LAX), Miami International Airport (MIA), Hartsfield-Jackson Atlanta International Airport (ATL), San Francisco International Airport (SFO), Houston Intercontinental Airport (IAH), and Boston Logan International Airport (BOS).

All teams are in various levels of training, and as the following table shows, 76 of the 120 total teams are considered certified to screen cargo. This means tbat under TSA reporting requirements for screened cargo, aircraft operators may count cargo screened by these certified teams as screened cargo.

Certified Canine Teams

Airport*	Total Allocation	Certified
ATL	(b)(3):49 U.S.C. § 114(r)	
BOS		
DFW		
DTW		
EWR		
HNL		
IAD		
IAH		
JFK		
LAX		
MIA		
ORD		
PHL		
SEA		
SFO		
Total	**120**	**76**

*See Appendix A for Airport Codes - Canine Team Locations by Name

As part of TSA's layered security approach, the canine teams conduct routine security sweeps to detect or deter explosive threats where cargo is staged, consolidated, or otherwise prepared for

transport. The canine teams conduct random patrols at various areas within the cargo environment during peak and non-peak hours. As of April 1, 2012, the TSI Cargo Canine Teams started the risk-based security initiative by using the Security Index Scores (SISs) to identify higher risk cargo to screen (versus randomly screening cargo). By using this approach, canine teams are able to focus screening efforts on higher risk cargo.

A variety of factors affect canine screening statistics, including the time of month a team is certified, the level of acclimation assistance required by area teams, and the amount of cargo available to be screened at any given time (which can vary seasonally by airport). The following graphs show the month-to-month trends in TSA proprietary canine screening overall for FY 2012.

Total Pieces Screened by Month by TSA Proprietary Canines FY 2012

Total Pounds Screened by Month by TSA Proprietary Canines FY 2012

(b)(3):49 U.S.C. § 114(r)

The preceding table is the total pounds screened per month for FY 2012, per the current data available. TSA proprietary canine teams collectively screen an average of (b)(3):49 U.S.C. § 11 of cargo uplifted at the top 15 U.S. airports. Following are the trends for canine screening contributions during FY 2012.

(b)(3):49 U.S.C. § 114(r)

Overall uplift at the top 15 originating cargo locations for August 2012 is identified in the following table:

Cargo Uplift at Top 15 Originating Locations, August 2012

Airport Code	Airport Name	CAT	August 2012 (cargo volume in pounds)
ATL	Hartsfield-Jackson Atlanta International	X	13,340,357
BOS	Boston Logan International	X	8,238,265
DFW	Dallas/Fort Worth International	X	6,115,798
DTW	Detroit Metropolitan Wayne County	X	5,224,874
EWR	Newark Liberty International	X	8,140,144
HNL	Honolulu International	X	5,435,024
IAD	Washington-Dulles International	X	7,675,722
IAH	Houston Intercontinental	X	10,096,472
JFK	John F. Kennedy International	X	41,094,413
LAX	Los Angeles International	X	51,442,924
MIA	Miami International	X	17,798,562
ORD	Chicago-O'Hare International	X	27,977,468
PHL	Philadelphia International	X	4,193,445
SEA	Seattle-Tacoma International	X	9,447,768
SFO	San Francisco International	X	18,723,782
		Total (volume in pounds	**234,945,018**

Allocation of FY 2013 Appropriations and FY 2012 Carryover Funds

Detailed breakdown of allocation	FY 2013 ($ millions)	FY 2012 Carryover ($ millions)
Program staff (20) and trainers/evaluators supporting the canine initiatives	**$0.8**	**$0**
Payroll, compensation, and benefits for 120 proprietary canine team handlers	**$6.6**	**$0**
Travel for inspection, program oversight	**$0.3**	**$0**
State and local cooperative agreements for LEO-led canine teams	**$3.5**	**$1.0**
Program support services, vehicle maintenance and fuel, equipment, and supplies	**$0.4**	**$0.0**
Subtotal	**$11.6**	**$1.0**
Total	**$12.6 million**	

D. Air Cargo Inspections

Domestic Transportation Security Inspectors – Cargo (TSIs-C)

TSA TSIs-C perform compliance inspections, which include SEIs, focused inspections, air cargo surges (weeklong compliance enforcement surges focused on IACs, aircraft operators carriers, and CCSFs within a single metropolitan area), and investigations and tests of aircraft operators, CCSFs, and IACs. TSA TSIs-C also perform educational outreach to assist aircraft operators, CCSFs, and IACs in complying with air cargo security mandates. TSIs-C are located at 121 airports with high cargo volumes in the United States.

In FY 2012, TSA TSIs-C executed their mission as follows:

Compliance Risk Assessment

In FY 2012, TSIs-C conducted more than 40,000 inspections at approximately 10,000 cargo facilities in the United States. TSA assigns each facility a risk score based on several factors, such as compliance with TSA security programs, results of enforcement investigations, and intelligence information. In FY 2012, there was a significant decrease in the number of cargo facilities deemed either "high risk" or "medium risk." In addition, there was an overall lower average risk score among all air cargo facilities.

The FY 2013 Compliance Work Plan outlines goals for inspecting regulated entities on the basis of risk at the station level, in addition to the minimum entity inspection requirements. TSA calculates risk scores for aircraft operators (which include both passenger and all-cargo), IACs, and CCSFs. Risk scores, also known as SISs, are based on a regulated entity's compliance

history and any intelligence information. These scores affect the frequency and type of inspection conducted by TSA. For example, an Elevated SIS requires quarterly inspections based on "targeted" concerns such as derogatory information discovered by the NTC-C, past violation history, or findings of noncompliance with acceptance of cargo, access control, warehousing and transporting, and cargo screening. TSA has used SISs in FY 2012 to focus inspector time during all field activities, including cargo surges, SEIs, and testing. At a high level, SISs direct inspection requirements as follows:

Security Index Score Requirements by Risk Level

Security Index Scores	Air Carrier, CCSF, and IAC Inspection Requirements
Elevated Risk	Critical/Targeted Areas inspection and two focused tests
Moderate Risk	Supplemental Inspection (Focus on screening, if applicable, or on areas with previous findings. Additional tests at Assistant Federal Security Director - Inspections or Federal Security Director discretion)
Low Risk	Annual inspection (Focus on screening, if applicable. Additional visits/tests at Assistant Federal Security Director - Inspections or Federal Security Director discretion)

TSI-C Staffing Levels

In FY 2010, TSA was authorized to hire an additional 50 TSIs-C, for a total allocation of 500, to augment the then-current staffing level in order to increase the number of inspections at domestic high-cargo volume, high-risk airports, and to ensure CCSP and industry compliance with the 100-percent air cargo screening mandate. As of September 17, 2012, 474 TSIs-C have been hired, trained, and deployed.

SEIs and Focused Inspections

SEIs are inspections that focus on areas of air cargo security that have been identified as vulnerabilities through regular inspection efforts. SEIs involve both covert and overt tests, coordinated inspections, and, when appropriate, more robust enforcement actions. (b)(3):49 U.S.C. § 114(r)

(b)(3):49 U.S.C. § 114(r)

(b)(3):49 U.S.C. § 114(r) Numerous SEIs are conducted yearly to ascertain if efforts are improving compliance rates.

TSA conducts quarterly SEIs, focused on realistic scenarios and previously identified vulnerabilities. TSA completed the same SEIs from FY 2009 through FY 2012, so that yearly compliance trends could be compared. As a result of the continued SEI initiatives, there has been an increase in the compliance rate for these specific focused inspections. As indicated in the following chart, the compliance rate improved in all non-intelligence-driven SEI areas tested.

SEI Compliance, FY 2009–FY 2012

SEI	FY 2009	FY 2010	FY 2011	FY 2012
STA Inspections	1,228 inspections	1,463 inspections	(b)(3):49 U.S.C. § 11 in 1,437 inspections	(b)(3):49 U.S.C. § 114(r)
Alternative Screening/Medical Shipments	536 inspections	679 inspections	(b)(3):49 U.S.C. § 1 in 723 inspections	
Invalid IAC Certificates	819 inspections	860 inspections	CCSF SEI was completed in FY 2011 instead of IAC Certificates	
Access Controls	2,017 total inspections	1,592 total inspections	(b)(3):49 U.S.C. § 114 in 1,563 inspections	

(b)(3):49 U.S.C. § 114(r)

Starting in FY 2012, SEIs became increasingly driven by intelligence and risk-based security measures. Because of this change, SEIs have been implemented on the basis of multiple risk-based factors. SEIs have been conducted on entities that have multiple locations throughout the United States and have been identified as having systemic instances of non-compliance with the security programs. Additionally, two SEIs have been conducted as joint initiatives with other

federal agencies. As a result of the continued SEI initiatives, there has been an increase in the compliance rate for these specific, focused inspections.

TSIs-C also test cargo acceptance requirements under the Known Shipper Program throughout the year. The Known Shipper Program sets forth requirements that apply in the United States permitting only cargo transported on passenger aircraft that is accepted from persons who are identified as known shippers; this component is an integral aspect of TSA's layered approach to air cargo security. To achieve "known" status, the business legitimacy of a shipper must be vetted by TSA. In FY 2012, TSIs-C conducted more than 7,000 small package tests with a national compliance (b)(3):49 U.S.C. § 114(r) TSIs-C conduct investigations of all small package test failures to determine the cause of non-compliance, including referring potential criminal cases to TSA's Office of Inspections. TSA will continue this small package testing in FY 2013. In addition, TSA will focus SEIs on CCSF locations throughout the country to determine compliance with CCSP requirements for the handling, screening, and security of CCSF cargo.

Cargo Screening Assessment Program (CSAP)

CSAP is a combination of covert and overt testing of cargo screening procedures. CSAP tests are conducted on domestic and foreign air carriers, IACs, and CCSFs. CSAP has two primary goals: 1) to measure screener performance through testing using realistic IED simulations and standardized testing protocols, and 2) to identify potential vulnerabilities in the current processes and procedures. As a result of the CSAP, TSA is better able to analyze test results at a national level to identify trends, vulnerabilities, and strengths across the system.

Air Cargo Surge/Augmentation Activities

Cargo Surges are compliance augmentation activities focused on IACs, air carriers, and CCSFs in a single metropolitan area. In FY 2013, TSA is using a risk-based approach for scheduling surges, such as in response to intelligence information and supporting national security events (for example, national political conventions), plus attention is given to top cargo volume airports. Recent enhancements to the Cargo Surge program include:

- Routine TSA Office of Intelligence briefings related to cargo are provided to inspectors and government participants
- Emphasis on direct observation of cargo screening
- A mobile screening checkpoint for personnel in secure cargo areas
- Security Identification Display Area badge audits
- Addition of TSA Office of Inspections, TSA proprietary canine teams, and TSA Transportation Security Officers to cargo surge teams. Many teams also include federal, state, and local stakeholders, as well as law enforcement.
- Introduction of Visible Intermodal Prevention and Response (VIPR) teams and related activity. VIPR teams work with local security and law enforcement officials, for

example, to supplement existing security resources, provide deterrent presence and detection capabilities, and introduce an element of unpredictability to disrupt potential terrorist planning activities. Although VIPR is primarily a Compliance Aviation and Surface mode activity directly funded through appropriations, TSIs-C supplement VIPR activities and focus on the air cargo supply chain, which allows the overt, visible appearance of inspectors, along with other government agency enforcement and regulatory personnel, to prevent and deter. If illegal, terrorist, or regulatory concerns arise, the correct agency will lead the effort.

In FY 2012, 2,415 Cargo Surges occurred at 22 airports. The following chart depicts a summary of all Cargo Surges that occurred in FY 2012.

Summary of Cargo Surges, October–March 2012

Type	Inspections	Findings	Enforcement Investigative Reports	Inspections with Findings	Inspections without Findings	Compliance Rate
IAC	1,711	(b)(3):49 U.S.C. § 114(r)				
Air Carrier	369					
CCSF	335					

During FY 2012, Cargo Surges occurred at the following locations:

FY 2012 Cargo Surge Locations

(b)(3):49 U.S.C. § 114(r)

Cargo Risk-Based Inspection Technique (CRBIT)

CRBIT was developed to assist the domestic TSIs-C with the identification of cargo that may pose a risk based on indicators. (b)(3):49 U.S.C. § 114(r)
(b)(3):49 U.S.C. § 114(r)
(b)(3):49 U.S.C. § 114(r) Indicators may be intelligence-driven, which is derived from local knowledge or other intelligence information provided by the TSIs-C. The TSIs-C may engage TSA's Cargo Targeting Unit jointly located at the NTC-C where information is shared from systems such as ACAS, which can support or refute inconsistencies with shipping information. Upon discovery of the indicators, the TSIs-C must attempt to refute those indicators. In the event the TSI-C is unable to refute the indicators, the cargo will be subject to a higher level of security before being

transported on an aircraft. Currently CRBIT is a domestic effort. Once training is complete for all domestic TSIs-C, which has been combined with a requirement to instruct cargo screening technologies, we will continue with our collaborative efforts offering the course to the TSA Office of Global Strategies' (OGS's) international TSIs-C.

The major benefit of CRBIT is that it enables TSA to prioritize inspection efforts on cargo that is more likely to present a threat to air commerce. CRBIT will affect inspectors by placing them in cargo facilities more often, develop more effective regulatory practices, allow for observation of cargo before transport, provide greater impact on ensuring the security of air cargo, and create a proactive regulatory environment. Compared to other inspection techniques such as reviewing documentation and interviewing persons after the cargo has already flown (which can be more forensic in nature), CRBIT is focused on the potential threat—the cargo with indications of risk, which requires mitigation before it is flown. CRBIT goes beyond looking at one regulated party and the party's compliance with TSA regulations, promoting detection, deterrence, and disruption of potential threats against the entire system of air cargo and our traveling public.

TSI-C Training Initiatives

In FY 2012, TSA enhanced its TSI-C training with the implementation of the Transportation Security Inspector Advanced Cargo Course. The course provides an in-depth review of how to inspect the cargo screening process. It gives TSIs-C a more detailed exposure to cargo screening including both physical and technology-based screening methods, as well as artful concealment of IEDs in cargo. TSA also used this course to introduce an enhanced inspection methodology for identifying high-risk cargo shipments that would undergo additional scrutiny before being transported on an aircraft.

TSIs-C continue to receive training in the following courses:

- *Transportation Security Inspector Basic Course – Cargo Week*: TSA reworked all Cargo Week modules to reduce redundancies, allowing instructors to spend more time on each concept, which has resulted in a more advanced instruction. Additionally, TSA established a Cargo Lab, a mock IAC/CCSF facility equipped with screening technologies currently in use by regulated entities. The facility is used during the instruction for an actual demonstration of the equipment and inspection processes.

- *Transportation Security Inspector Advanced Cargo Security Course*: The course provides an in-depth review of how to inspect the cargo screening process. It gives TSIs-C a more detailed exposure to cargo screening including both physical and technology-based screening methods, as well as artful concealment of IEDs in cargo. This course also provides instruction on the CRBIT, which helps identify cargo that may pose a higher risk to the air transportation industry.

- *Cargo Workshop*: TSA enhanced instructor skills for Cargo Inspectors for the Transportation Security Inspector Basic Course – Cargo Week.

CBP NTC-C Liaison and ACAS Staffing

Since FY 2010, TSA has maintained a liaison position with CBP at the NTC-C to increase information sharing between the two agencies. This liaison position is staffed with an expert TSI-C. The NTC-C is able to utilize known terrorist information received from National Targeting Center-Passenger (NTC-P) and conduct in-depth research in various systems to identify cargo shipments and businesses linked to these individuals. Additionally, in FY 2011, TSA staffed the NTC-C ACAS unit with 10 TSIs-C, working side by side with CBP officers to target high-risk air cargo shipments as part of the ACAS pilot initiative. TSIs-C staffed at the NTC-C also perform domestic security reviews of high-risk air cargo shipments referred from field inspectors, assist in cargo alarm resolution, and conduct in-depth research on new IAC applicants. In FY 2013, it is anticipated that this staffing will notably increase to support the ACAS pilot expansion to additional segments of the airline industry.

International Cargo Inspections

During FY 2012, passenger flights from 152 foreign airports in 87 countries transported cargo to the United States. More than 3.5 billion pounds of cargo arrived on these conveyances and another 4.9 billion pounds was transported by all-cargo aircraft departing from 99 foreign airports in 59 countries. A significant amount of these cargo loads did not originate at these departure airports but were initiated at locations sometimes two, three, or more airports before their final movement to the United States—necessitating a thorough understanding and verification of security measures of the cargo supply chain.

TSA's OGS is charged with verifying the security measures applied to international inbound air cargo and does so through deployment of its Transportation Security Specialists – Cargo (TSSs-C). The verification procedures include a series of on-site audits of foreign airports, air carrier cargo facilities, and off-airport cargo sites. Verification procedures are conducted at every foreign LPD airport at least annually, with interim activities scheduled for the higher-priority sites. These activities included reviews of each air carrier's quarterly self-audit, evaluation of all Regulated Agent or Authorized Representative Agreements, and participation in the NCSP recognition process. Until the passage of the FY 2012 appropriations, only 10 international TSSs-C were assigned by TSA to fulfill the tasks. To compensate for the lack of available personnel and accomplish the needed vulnerability assessments, TSA conducted comprehensive cargo training for its remaining 57 international inspectors whose primary focus had been on the passenger aspect of foreign air transport operations.

The FY 2012 appropriations enabled TSA to establish an additional 53 international inspector positions, significantly enhancing its cargo inspection regime. These field positions were

distributed among the five existing Regional Operations Centers (ROCs) and enabled TSA to create two new ROCs. These offices are located in Miami (covering Central/South America and the Caribbean), Dallas (covering Canada and Mexico), Los Angeles (covering Australia, New Zealand, and Japan), Singapore (covering Asia), Frankfurt (covering Sub-Saharan Africa and Europe), Honolulu (covering the Pacific Islands), and Northern Virginia (covering North Africa and Middle East). The TSS-C FTEs were distributed according to the prevalence of cargo flights from their respective areas of responsibility.

Because of the function approach, which utilizes existing TSSs, and the increase in the TSS-C FTEs, TSA was able to accomplish the following in FY 2012:

- 862 cargo inspections of U.S. passenger aircraft operators
- 576 cargo inspections of foreign passenger air carriers
- 256 cargo inspections of U.S. all-cargo aircraft operators
- 137 cargo inspections of foreign all-cargo air carriers

These additional positions also enabled TSA to accomplish the following in FY 2012:

- *NCSP recognition*: An important facet of the approach to ensure 100-percent screening of international inbound air cargo transported on passenger aircraft involves leveraging foreign countries' cargo supply chain security requirements that TSA determines provides a level of security that meets or exceeds current U.S. air cargo supply chain security requirements. Through policy and program reviews, on-site discussions with foreign government cargo security authorities, and observations of cargo screening activities across the supply chain, TSA is able to determine which NCSPs can be recognized. Of particular concern is the preponderance of countries that currently screen cargo, but do not use the type of equipment or the specific techniques required by TSA. The additional TSS-C cadre has enabled TSA to conduct on-site visits at each location to determine whether the interim measures put in place by the airport or government sufficiently mitigate the ongoing threat. As of December 3, 2012, 33 countries' NCSPs were formally recognized. Another six were in the process of being evaluated or were implementing the recommendations resulting from the on-site reviews. The priorities for NCSP outreach expanded to include those countries from which a high volume of air cargo originates, such as China.

- *ACAS pilot*: This partnership with CBP involves obtaining manifest information on cargo destined for the United States well before being loaded on the inbound flight. TSA and CBP have developed response protocols that have been implemented when high-risk cargo is identified. Through this pilot and use of the risk identifiers developed within ATS, TSA is able to ascertain the countries that are the sources of the highest percentage and greatest number of potentially high-risk shipments. With the additional personnel, TSA has been able to more accurately calculate the level of risk associated with particular

airports and deploy to those sites to physically observe response protocols and verify necessary actions, as appropriate, when the pilot becomes fully operational.

(b)(3):49 U.S.C. § 114(r)

- *All-Cargo Airport Assessments*: During FY 2011, TSA developed a methodology and scope/content of airport assessments for those locations from which all-cargo flights depart to the United States, or at which U.S. all-cargo carriers operate. This methodology was further refined in FY 2012, and these all-cargo airport assessments are now being performed at locations where TSA has not previously visited because of the lack of passenger service and resource constraints. During FY 2012, all-cargo airport assessments were conducted in Chile, Poland, Luxembourg, Malaysia, China, Brazil, Bulgaria, and Canada.

During FY 2013, TSA intends to accomplish the following air cargo-related initiatives:

- *Data validation and verification*: As of December 3, 2012, 100 percent of cargo transported on passenger aircraft from foreign LPDs to the United States is screened in accordance with air cargo screening requirements in the 9/11 Act. The international TSS cadre will perform the necessary observations to ensure full compliance with this requirement. In addition to on-site observations to ensure the appropriate equipment is being employed to screen each commodity, TSA international TSSs will verify the accuracy of the self-reported data submitted each month by the passenger air carriers and highlight for further resolution any instances where an air carrier's data are not supported by onsite observations.

- *Expand NCSP recognition outreach and engagement*: Priorities have been placed on analyzing NCSPs for those countries from which cargo is shipped directly to the United States. During FY 2013, a more thorough understanding of the entire air cargo supply chain will be developed; this knowledge will enable TSA to focus attention on those countries from which U.S.-destined cargo originates, not just those through which the cargo moves.

- *Explosive Canine Detection Program recognition*: The effectiveness of canines in detecting certain explosives is widely recognized, and numerous countries and organizations have initiated programs to capitalize on this screening method. However, the capabilities of the various canine programs vary widely around the world. For

example, not all programs are designed to detect the same types of explosives. During FY 2013, TSA will develop a process for analyzing and potentially recognizing the capabilities of the existing EDC programs globally.

- *Strengthening international air cargo security requirements*: TSA will expand its outreach and engagement with the International Civil Aviation Organization, the World Customs Organization, the Universal Postal Union, and influential Member States involved in each entity to strengthen supply chain security. Through the implementation of more robust international standards, TSA will ensure progress toward a more secure environment that does not slow or stall the movement of legitimate commerce.

Allocation of FY 2013 Appropriations and FY 2012 Carryover Funds

Detailed breakdown of allocation against initiatives	FY 2013 ($ millions)	FY 2012 Carryover ($ millions)
Payroll, compensation, and benefits to hire, train, and support 500 TSIs-C + 19 Headquarters staff and analysts	$22.1	$3.0
Personnel cost for 61 international inspectors and staff[1]	$2.8	$1.2
Travel, training and field inspection equipment, and vehicle maintenance	$2.0	$1.7
Subtotal	$26.9	$5.9
Total	**$32.8 million**	

[1]An additional $3.5 million is also funded under the Aviation Regulation appropriation.

E. Air Cargo and Mail Screening Technologies

The TSA Air Cargo Screening Technology Program supports the qualification and evaluation of existing and emerging air cargo screening technologies and procedures to determine the suitability, effectiveness, and feasibility for use in the air cargo screening environment. Cargo screening offers unique challenges because of a wide variance in commodities shipped, volume, throughput, and facility characteristics for each screening entity. No single technology is appropriate for every screening scenario. Consequently, TSA has authorized a suite of technologies and associated screening protocols from which screening entities may choose on the basis of their unique requirements and commodities.

TSA publishes authorized screening equipment on the TSA Air Cargo Screening Technology List (ACSTL) on a secure Web site accessible by regulated parties, which industry can reference when making their procurement decisions. TSA does not procure or deploy equipment for the air cargo industry. Instead, industry is required to purchase, use, and maintain systems authorized by TSA and listed on the ACSTL. The current TSA ACSTL includes 111 pieces of cargo screening equipment. TSA has qualified 22 large aperture X-ray technologies for

screening skid-level configurations. TSA continues to evaluate the operational efficacy of these technologies to accommodate the cargo screening volumes currently required to support the 100-percent screening mandate. TSA is also evaluating other technologies for air cargo screening, including vapor detection systems, acoustic-based technologies, mass spectroscopy, and supply chain integrity technologies. Outcomes of DHS/TSA Transportation Security Laboratory testing and TSA Office of Security Capabilities Operational Utility Evaluation field testing and evaluation may result in modifications or additions to this list. TSA has issued screening protocols that detail screening methodologies for each technology type and provide guidance on which technologies can be used for specific commodity classes.

TSA is collaborating with the United States Postal Inspection Service to assess effective and suitable technologies for use in screening mail and courier bags transported on commercial aviation. Significant live explosives testing is scheduled throughout FY 2013, with the goal of providing assessment reports by the end of the fiscal year.

TSA has authorized the use of the following technologies to screen air cargo. These technologies are currently being used by industry and TSA to screen air cargo on passenger aircraft unless otherwise noted:

- **ETD:** These devices are able to detect explosive particles on items intended to be transported as air cargo. The process detects trace amounts of explosives transferred to an object or package when a terrorist packs explosives. The system is composed of a sampling medium (swab), an optional sampling wand to hold the medium during the screening process, and an ETD unit to analyze the sample medium for explosive particles.

- **X-Ray and AT X-Ray:** Both types of systems penetrate cargo with X-rays to produce and display images of the cargo contents. X-ray screening technology includes systems that allow a qualified operator to ascertain the presence or absence of a threat without automated or assisted functionality. AT X-Ray systems incorporate at least two distinct primary views—not in the same plane—and offer material discrimination functionality, such as the ability to distinguish between organic, inorganic, and metallic materials. These systems typically include a variety of manual functions to assist in interpretation, such as color options, image enhancements, and zoom capabilities.

- **EDS:** EDS is an automated device or combination of devices qualified by TSA as having the ability to detect amounts, types, and configurations of explosive materials. These devices use rotating X-ray tubes and detectors to create cross-sectional images (or slices) of an object. Software assembles images of the individual slices to build a three-dimensional image of the object. An EDS is able to calculate mass and density of any individual object and will automatically produce an alarm if the object's mass or density falls into the range typical for explosive threats.

- **EMD:** EMD is a non-intrusive inspection system, designed to screen non-metallic cargo for metallic components.

Cargo screening presents unique challenges because of a wide variance in commodities, volume, throughput, and facility characteristics of each screening entity. No single technology is appropriate for every screening scenario. TSA has approved a suite of technologies and associated screening protocols from which screening entities may choose on the basis of their unique requirements and commodities.

Allocation of FY 2013 Continuing Resolution and FY 2012 Carryover Funds

Detailed breakdown of allocation	FY 2013 ($ million)	FY 2012 Carryover ($ million)
Testing, evaluation, and qualification of existing and new technologies for use in air cargo and mail with new cargo screening requirements	$4.6	$0.1
Subtotal	$4.6	$0.1
Total	**$4.7 million**	

IV. DHS Action Plan for International Inbound Air Cargo

TSA made significant progress toward successful implementation of its air cargo security initiatives to satisfy the 100-percent screening mandate for international inbound air cargo on passenger flights. In FY 2013, TSA will continue to focus air cargo resources on ensuring domestic compliance with the 100-percent screening requirement and the 100-percent screening requirement for international inbound air cargo transported on passenger aircraft by:

- Continuing to require 100-percent screening of international inbound air cargo transported on passenger aircraft;
- Continuing to require the screening of 100 percent of high-risk international inbound air cargo transported on all-cargo aircraft;
- Implementing all phases of ACAS for pre-departure risk assessment of international inbound air cargo;
- Testing, evaluating, and qualifying new and existing technologies capable of and appropriate for screening specific commodities;
- Expanding NCSP outreach and engagement to foreign countries to evaluate air cargo and mail security protocols to determine if such programs provide a level of security commensurate with current U.S. air cargo supply chain security requirements, and thus whether they may be recognized by TSA for implementation by affected air carriers; and
- Continuing outreach to stakeholders to better align global air cargo security standards and advance the "supply chain screening" approach toward 100-percent screening of international inbound air cargo on passenger aircraft.

V. Appendices

Appendix A. Airport Codes – Canine Team Locations

Airport Code	Airport Name	Airport Code	Airport Name
ABQ	Albuquerque International Sunport	LIT	Little Rock National
ACY	Atlantic City	MCI	Kansas City International
ANC	Ted Stevens Anchorage International	MCO	Orlando International
ATL	Hartsfield-Jackson Atlanta International	MDW	Chicago Midway
AUS	Austin-Bergstrom International	MEM	Memphis International
BDL	Bradley International	MHT	Manchester-Boston Regional
BGR	Bangor International	MIA	Miami International
BHM	Birmingham-Shuttlesworth International	MKE	General Mitchell International
BNA	Nashville International	MSP	Minneapolis-St. Paul International
BOI	Boise Air Terminal/Gowen Field	MSY	Louis Armstrong New Orleans International
BOS	Boston Logan International	MWAA (for DCA and IAD)	Metropolitan Washington Airport Authority
BUF	Buffalo Niagara International	OAK	Oakland International
BWI	Baltimore-Washington International Thurgood Marshall	OMA	Omaha Eppley Airfield
CLE	Cleveland Hopkins International	ONT	LA/Ontario International
CLT	Charlotte/Douglas International	ORD	Chicago-O'Hare International
CMH	Port Columbus International	ORF	Norfolk International
COS	Colorado Springs Municipal	PAPD	Port Authority Police Department
CPD	Chicago Police Department	PBI	West Palm Beach International
CVG	Cincinnati/Northern Kentucky International	PDX	Portland International
DAL	Dallas Love Field	PHL	Philadelphia International
DAY	James M. Cox Dayton International	PHX	Phoenix Sky Harbor International
DEN	Denver International	PIT	Pittsburgh International
DFW	Dallas/Fort Worth International	PVD	T F Green
DTW	Detroit Metropolitan Wayne County	RNO	Reno-Tahoe International
ELP	El Paso International	RSW	Southwest Florida International
EWR	Newark Liberty International	SAN	San Diego International
FLL	Ft. Lauderdale-Hollywood International	SAT	San Antonio International
GSN	Saipan International	SDF	Louisville Regional

Airport Code	Airport Name	Airport Code	Airport Name
GSO	Piedmont Triad International	SEA	Seattle-Tacoma International
GUM	Antonio B. Won Pat International	SFO	San Francisco International
HNL	Honolulu International	SJC	Norman Y. Mineta San Jose International
HOU	Houston Hobby	SJU	Luis Munoz Marin International
IAH	Houston Intercontinental	SLC	Salt Lake City International
IND	Indianapolis International	SMF	Sacramento International
ITO	Hilo International Airport	SNA	John Wayne
JAX	Jacksonville International	STL	Lambert-St. Louis International
JFK	John F. Kennedy International	STT	Cyril E. King
LAS	McCarran International	TPA	Tampa International
LAX	Los Angeles International	TUL	Tulsa International
		TUS	Tucson International

Appendix B: Abbreviations/Acronyms

ACAS	Air Cargo Advance Screening
ACSTL	Air Cargo Screening Technology List
AT	Advanced Technology
ATS	Automated Targeting System
CBP	U.S. Customs and Border Protection
CBRIT	Cargo Risk-Based Inspection Technique
CCSF	Certified Cargo Screening Facility
CCSP	Certified Cargo Screening Program
CR	Continuing Resolution
CRT	Cargo Reporting Tool
CSAP	Cargo Screening Assessment Program
DHS	Department of Homeland Security
EA	Emergency Amendment
EC	European Commission
ETD	Explosives Trace Detection
EDC	Explosives Detection Canine
EDS	Explosives Detection System
EMD	Electronic Metal Detection
EU	European Union
FTE	Full-Time Equivalent
FY	Fiscal Year
IAC	Indirect Air Carrier
IACMS	Indirect Air Carrier Management System
ICSF	Independent Cargo Screening Facility
IED	Improvised Explosives Device
IFR	Interim Final Rule
IT	Information Technology
KSMS	Known Shipper Management System

LEO	Law Enforcement Officer
LPD	Last Point of Departure
NCSP	National Cargo Security Program
NTC-C	National Targeting Center-Cargo
NTC-P	National Targeting Center-Passenger
OGS	Office of Global Strategies
ROC	Regional Operations Center
SD	Security Directive
SEI	Special Emphasis Inspection
SIS	Security Index Score
SSP	Standard Security Program
STA	Security Threat Assessment
TSA	Transportation Security Administration
TSI-C	Transportation Security Inspector – Cargo
TSS-C	Transportation Security Specialist – Cargo
VIPR	Visible Intermodal Prevention and Response

Visible Intermodal Prevention and Response Program Expenditure Plan

Fiscal Year 2013 Report to Congress

December 3, 2012

Homeland Security

Transportation Security Administration

SENSITIVE SECURITY INFORMATION

Message from the Administrator

December 3, 2012

I am pleased to present the following "Visible Intermodal Prevention and Response Program Expenditure Plan" for Fiscal Year (FY) 2013, which has been prepared by the Transportation Security Administration (TSA). The plan was compiled pursuant to language set forth in the *FY 2013 Continuing Appropriations Resolution* (P.L. 112-175).

The expenditure plan identifies the purposes for which the funding will be used and includes details about how and where the 37 Visible Intermodal Prevention and Response (VIPR) teams have been deployed.

Pursuant to congressional language, this report is being provided to the following Members of Congress:

The Honorable Robert B. Aderholt
Chairman, House Appropriations Subcommittee on Homeland Security

The Honorable David E. Price
Ranking Member, House Appropriations Subcommittee on Homeland Security

The Honorable Mary L. Landrieu
Chairman, Senate Appropriations Subcommittee on Homeland Security

The Honorable Daniel Coats
Ranking Member, Senate Appropriations Subcommittee on Homeland Security

Inquiries relating to this report may be directed to me at (571) 227-[(b)(6)] or to the Department's Chief Financial Officer, Peggy Sherry, at [(b)(6)]

Sincerely yours,

John S. Pistole
Administrator
Transportation Security Administration

Executive Summary

TSA formed VIPR teams in FY 2008, as requested in the President's FY 2008 Budget Amendment, and located 10 VIPR teams as determined by the presence of high-risk transportation systems within existing TSA Office of Law Enforcement (OLE)/Federal Air Marshal Service (FAMS) field offices and TSA Office of Security Operations (OSO) Federal Security Director (FSD) field locations. In FY 2010, TSA expanded this initiative by adding additional surface VIPR teams in or near 15 additional TSA OLE/FAMS field offices, Resident Air Marshal in Charge (RAC) offices, and at FSD field locations throughout the Nation, enhancing TSA's capability to be responsive and providing a nationwide footprint.

TSA received additional funding to deploy 12 multi-modal VIPR teams in FY 2012, bringing the total number of TSA VIPR teams to 37. Staffing for these teams was initiated during the fourth quarter of FY 2012, with full benefits anticipated by the end of FY 2013. The teams are located at or near areas that have been identified by TSA as having concentrations of high-risk transportation systems.

As a result of the continuing maturity of the VIPR program, especially in the development of transportation security stakeholder and partner relationships, TSA has been able to significantly increase VIPR deployment levels across the Nation. TSA anticipates being able to maintain its current deployment level while increasing its reliance on risk-based planning to target deployments more effectively.

Visible Intermodal Prevention and Response Program Expenditure Plan, Fiscal Year 2013

Table of Contents

I. Legislative Language

This document has been prepared pursuant to the *FY 2013 Continuing Appropriations Resolution* (P.L. 112-175; "CR"). Section 116(a)(2) of the CR states:

> Sec. 116. (a) Not later than 30 days after the date of the enactment of this joint resolution, each department and agency in subsection (c) shall submit to the Committees on Appropriations of the House of Representatives and the Senate, for the period through the date specified in section 106(3) of this joint resolution, a spending, expenditure, or operating plan ...
>
> > (2) as applicable, at any greater level of detail required for funds covered by such a plan in an appropriations Act referred to in section 101, in the joint explanatory statement accompanying such Act, or in committee report language incorporated by reference in such joint explanatory statement.

II. Background

Under Section 1303 of *Implementing Recommendations of the 9/11 Commission Act of 2007* (P.L. 110-53; 9/11 Act), the Secretary, acting through the TSA Administrator, developed VIPR teams to augment the security of any mode of transportation at any location within the United States. The mission of the VIPR program is to promote public confidence in, and protect, our Nation's transportation systems through risk-based targeted deployment of integrated TSA assets in coordinated activities to augment the security of any mode of transportation.

The VIPR program was developed and implemented as part of TSA's flexible, layered, and unpredictable security program. VIPR also provides TSA the ability to respond quickly to unplanned or incident-driven events and execute response and recovery capabilities.

TSA's first VIPR exercise was in mid-December 2005, approximately 2 years before the VIPR program was formally established in 2007 in accordance with the 9/11 Act. In FY 2008, Congress institutionalized the VIPR program by providing TSA $20 million (annualized to $30 million) to establish 10 multi-modal VIPR teams consisting of Federal Air Marshals (FAMs), Transportation Security Inspectors-Aviation (TSIs-A), and Transportation Security Inspectors-Surface (TSIs-S). These 10 teams are co-located within OLE/FAMS field offices and at FSD field locations. In FY 2010, the VIPR program received an enhancement of $25 million to establish 15 surface VIPR teams. This enhancement was annualized to $50 million in FY 2012. The teams funded by this appropriation included FAMs, TSIs-S, Behavior Detection Officers (BDOs), and Transportation Security Specialists-Explosives (TSSs-E). The FY 2012 enacted appropriation provided the VIPR program with an additional enhancement of $11.8 million for 12 multi-modal VIPR teams that were established at the end of FY 2012. These teams focused on FAMs and Transportation Security Officers (TSOs).

[SSI] TSA maintains a partnership with the Department of Homeland Security (DHS) Domestic Nuclear Detection Office (DNDO) to train and equip its OLE/FAMS VIPR teams with Preventative Nuclear Radiological Detection (PRND) devices that are being deployed primarily in surface modes of transportation. Funds for PRND training and equipment are being provided by DNDO, to include out-year expenses and equipment life-cycle considerations. TSA is responsible for routine maintenance of the PRND equipment. During FY 2012, approximately (b)(3):49 U.S.C. § 11 of VIPR operations included PRND capabilities.

III. VIPR Operational Deployment Methodology

Since the program's establishment in 2007, VIPR deployments have been conducted in both the aviation and surface transportation modes. These deployments are planned and implemented using a risk-based approach. This approach utilizes threat, vulnerability, and consequence assessments, along with existing intelligence and empirical data, to identify and prioritize deployment locations. In addition, VIPR operations incorporate elements of randomness and are unpredictable in frequency, location, and duration. Operational deployments based on credible threats identified by the intelligence community take priority over deployments based on the planning process. TSA senior leadership can also direct a VIPR deployment to meet the agency mission, such as countering an immediate threat.

VIPR teams are deployed through deliberate planning with federal, state, and local transportation security and law enforcement officials to augment existing resources in response to an intelligence-driven threat and to provide a deterrent presence through risk-based deployments. By doing this repeatedly, in coordination with its transportation security and law enforcement stakeholders/partners, TSA is better prepared to respond to incidents through the development of strong working relationships in local communities. These enhanced working relationships foster improved integration and information sharing with other responding entities as the need arises.

The TSA Joint Coordination Center (JCC) is the national coordination center for all TSA VIPR operations and is responsible for oversight of the planning, deployment, and analytical processes for VIPR operations throughout the Nation. It is the centralized source of information for the TSA Administrator and TSA senior leadership regarding the deployment of TSA assets for VIPR operations. The JCC is composed of OLE/FAMS and OSO personnel.

IV. VIPR Expenditure Plan

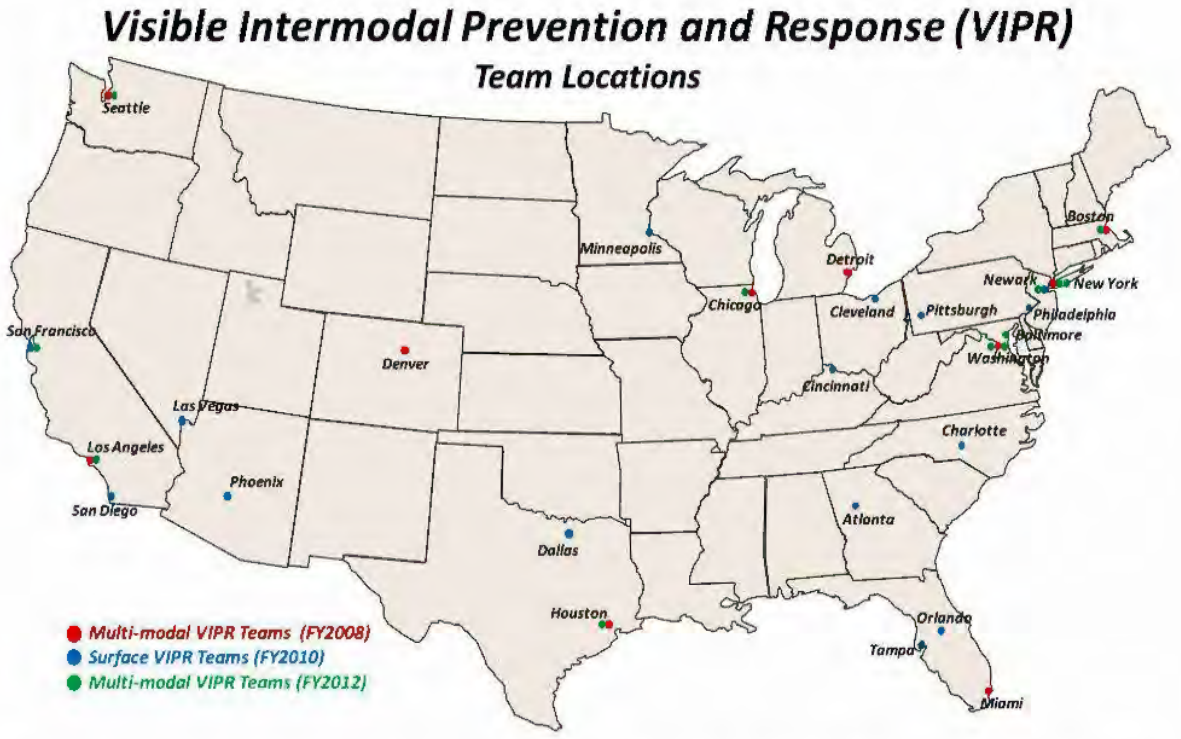
In FY 2012, TSA's VIPR program received an appropriation of $90 million to maintain 25 existing teams and establish 12 new multi-modal teams. For the period of the current continuing resolution for FY 2013, through March 27, 2013, the funding level of the VIPR program is $47.878 million. In addition, carryover funding of $8 million will be available to fund VIPR payroll, specific training, and equipment, and to enhance information systems.

The VIPR teams have been an important step toward building a nationwide footprint for this transportation security and law enforcement program. These teams are positioned to work closely with other federal, state, and local law enforcement and transportation stakeholders to reduce the terrorism risk to the Nation's transportation systems, especially those focused on the traveling public.

The VIPR teams are co-located within or adjacent to OLE/FAMS and OSO FSD offices. The latest 12 teams were positioned on the basis of assessment of the risk associated with the transportation infrastructure in each area of responsibility (AOR). The 37 VIPR teams are deployed in the following AORs to support a full range of deployments at the local, regional, and national level. The columns indicate the fiscal year in which the teams were initially funded.

Area of Responsibility	FY 2008	FY 2010	FY 2012	Total
Atlanta		1		1
Baltimore			1	1
Boston	1		1	2
Charlotte		1		1
Chicago	1		1	2
Cincinnati		1		1
Cleveland		1		1
Dallas		1		1
Denver	1			1
Detroit	1			1
Houston	1		1	2
Las Vegas		1		1
Los Angeles	1		1	2
Miami	1			1
Minneapolis		1		1
Newark		1	1	2
New York	1		2	3
Orlando		1		1
Philadelphia		1		1

Area of Responsibility	FY 2008	FY 2010	FY 2012	Total
Phoenix		1		1
Pittsburgh		1		1
San Diego		1		1
San Francisco		1	1	2
Seattle	1		1	2
Tampa		1		1
Washington	1		2	3
Totals	**10**	**15**	**12**	**37**



Co-locating the VIPR teams within established OLE/FAMS and OSO FSD offices provides the necessary infrastructure to support VIPR operations based on a geographic region approach. The locations ensure that TSA can effectively and efficiently deploy VIPR assets to transportation venues that carry the greatest risk. This widespread asset configuration allows VIPR resources to respond quickly to unplanned or incident/intelligence-driven events. In addition, TSA has seen an increase in the collaboration and coordination with its transportation and law enforcement stakeholders/partners, and, as such, the number of VIPR operations has also significantly increased (see chart on following page).

Each VIPR team supports a distinct AOR, which includes aviation and surface transportation venues. This focus on a specific AOR allows the teams to be highly cognizant of their regional needs for VIPR operations, while allowing the deployment of TSA VIPR assets to remain scalable and flexible to respond to ongoing threat streams, as appropriate.

VIPR deployment teams consist of a combination of any of the following: FAMs, TSIs, BDOs, TSSs-E, TSOs, explosives detection canine teams, and other local, state, and federal transportation security and law enforcement stakeholders/partners. The VIPR mission of enhancing existing transportation security and law enforcement assets within a mode of transportation guides each VIPR deployment team's actual composition. Operational teams are tailored to each transportation venue and the specific needs of each transportation partner, as determined by the threats, vulnerabilities, and consequences of specific locations and the capabilities of VIPR resources to mitigate the potential effects of those vulnerabilities.

The TSA VIPR program conducts operations in all modes of transportation. At the inception of the program, TSA focused on conducting VIPR operations in aviation modes. In response to increasing risk in the surface modes, especially in mass transit, TSA has increased its focus on surface modes of transportation and will continue this effort. Responding to current risks, approximately 69 percent of all VIPR operations were conducted in surface modes, primarily in mass transit, during FY 2012.

As a result of the increasing maturity of relationships between the VIPR teams and their transportations system stakeholders and the increasing number of VIPR teams, the number of VIPR operations has grown from 148 deployments per week in FY 2010 to 240 deployments per week during FY 2012, resulting in 12,845 operations for FY 2012. The following chart provides operational data by mode for TSA's VIPR Operations. For FY 2010–FY 2012, the data summarize actual performance, while the data for FY 2013 reflect current program targets.

[SSI] VIPR Program Summary Data

	Multi-Modal Teams	Surface Appropriation Teams	Aviation Operations	Surface Operations	Total Operations
FY 2010	10	15	3,789	3,900	7,689
FY 2011	10	15	2,876	6,500	9,376
FY 2012	22	15	3,977	8,868	12,845
FY 2013	22	15	3,800	8,800	12,600*

- Denotes projected metric for FY2013.

The FY 2013 CR funding level of $55.878 million inclusive of 2012 carryover will be expended as follows:

Category	Description	Amount
Payroll	**Field Assets** (37 teams to include FAMs, Supervisory FAMs, TSIs-A, TSIs-S, BDOs, TSSs-E, and TSOs) **VIPR Program Support**	**$49,225,778**
General Expenses	VIPR Travel, Equipment, Vehicles and Vehicle Maintenance, Clothing, Training and Information Technology contracts	**$6,652,222**

V. VIPR Metrics

TSA has refined its VIPR performance measures plan by developing the following metrics. These metrics are assessed as a package that considers the deployment frequency, the risk focus, and stakeholder relationships.

- **Number of VIPR team operations:** This metric reports the number of VIPR team operations conducted within the United States and its territories in all transportation modes. This metric is also measured at the aviation and surface mode levels.

- **Percentage of National Special Security Events (NSSEs) and Special Event Assessment Rating (SEAR) Events at which VIPR teams are deployed:** This performance metric reports the percent of NSSE and SEAR events at which VIPR teams are deployed. NSSEs and SEARs are determined by DHS. Current VIPR protocol calls for VIPR deployments to transportation venues associated with all NSSEs and SEARs with a rating of 1 or 2.

- **Percentage of high-risk locations and stakeholders involved with VIPR operations:** This performance metric reports the percentage of anticipated high-risk locations and stakeholders that participate in VIPR operations. The VIPR program works with TSA's Office of Security Policy and Industry Engagement to identify the high-risk locations and stakeholders in each mode of transportation.

- **Percentage of repeat VIPR deployments with primary stakeholders:** This performance metric reports the completion rate of repeat VIPR deployments with primary stakeholders. A repeat VIPR deployment is defined as a VIPR operation that continues the working relationship, through additional operations, with the same primary transportation stakeholder/partner during a quarter. A primary transportation stakeholder/partner is defined as a federal, state, or local security or law enforcement authority or entity with which TSA conducts a VIPR operation, and is the lead authority for providing transportation security activities in the locality where a VIPR operation is being conducted.

The FY 2012 results for these metrics indicate that the program achieved its target levels. For FY 2013, the program anticipates achieving its target levels.

Metric	FY 2012		FY 2013	
	Target	Result	Target	Projection
Number of VIPR team operations	9,200	12,845	12,600	12,600
Percent of NSSE and SEAR events at which VIPR teams are deployed	100%	100%	100%	100%

Metric	FY 2012		FY 2013	
	Target	Result	Target	Projection
Percentage of high-risk locations and stakeholders involved with VIPR operations	(b)(3):49 U.S.C. § 114(r)			
Percent of repeat VIPR deployments with primary stakeholders				

VI. Conclusion

Funding of the 37 VIPR teams enables TSA to continue to address vulnerabilities in the Nation's transportation system by augmenting federal, state, local, and tribal transportation security and law enforcement resources with a federal transportation security and law enforcement presence. The VIPR program also allows for more effective collaboration and coordination with TSA's transportation security and law enforcement stakeholders/partners through dedicated assets that can work together to mitigate the terrorism risk to the Nation's transportation infrastructure.

Appendix – Abbreviations/Acronyms

AOR	Area of Responsibility
BDO	Behavior Detection Officer
DHS	Department of Homeland Security
DNDO	Domestic Nuclear Detection Office
FAM	Federal Air Marshal
FAMS	Federal Air Marshal Service
FSD	Federal Security Director
FY	Fiscal Year
JCC	Joint Coordination Center
NSSE	National Special Security Event
OLE	Office of Law Enforcement
OSO	Office of Security Operations
PRND	Preventative Nuclear Radiological Detection
RAC	Resident Air Marshal in Charge
SEAR	Special Event Assessment Rating
TSA	Transportation Security Administration
TSI-A	Transportation Security Inspector-Aviation
TSI-S	Transportation Security Inspector-Surface
TSS-E	Transportation Security Specialist-Explosives
TSO	Transportation Security Officer
VIPR	Visible Intermodal Prevention and Response

Air Cargo Fiscal Year 2014 Expenditure Plan

April 28, 2014

Fiscal Year 2014 Report to Congress

Homeland Security

Transportation Security Administration

Message from the Administrator

April 28, 2014

I am pleased to submit the following "Air Cargo Fiscal Year 2014 Expenditure Plan," prepared by the Transportation Security Administration (TSA).

This report was compiled pursuant to language set forth in the *Fiscal Year* (FY) *2014 Department of Homeland Security* (DHS) *Appropriations Act* (P.L. 113-76) and accompanying Joint Explanatory Statement, House Report 113-91, and Senate Report 113-77. This expenditure plan identifies the purposes for which the funds appropriated under P.L. 113-76 will be used, and specifies the initiatives that fulfill the air cargo requirements of the *Implementing Recommendations of the 9/11 Commission Act of 2007* (P.L. 110-53; 9/11 Act).

Pursuant to congressional requirements, this report is being provided to the following Members of Congress:

The Honorable John R. Carter
Chairman, House Appropriations Subcommittee on Homeland Security

The Honorable David E. Price
Ranking Member, House Appropriations Subcommittee on Homeland Security

The Honorable Mary L. Landrieu
Chairman, Senate Appropriations Subcommittee on Homeland Security

The Honorable Daniel Coats
Ranking Member, Senate Appropriations Subcommittee on Homeland Security

Inquiries relating to this report may be directed to me at (571) 227-(b)(6), or to the Department's Acting Chief Financial Officer, Chip Fulghum, at (b)(6)

Sincerely yours,

John S. Pistole
Administrator
Transportation Security Administration

Executive Summary

The *Aviation and Transportation Security Act* (P.L. 107-71) established TSA and, among other things, designated the TSA Administrator as being responsible for security in all modes of transportation, including civil aviation security.

Section 1602 of the 9/11 Act requires "the Secretary [of Homeland Security] to establish a system to screen 100-percent of cargo transported on passenger aircraft operated by an air carrier or foreign air carrier in air transportation or intrastate air transportation to ensure the security of all such passenger aircraft carrying cargo."[1] This mandate includes air cargo transported on passenger aircraft departing U.S. airports (domestic air cargo) and air cargo transported on passenger aircraft destined for U.S. airports operating from foreign last point of departure (LPD) airports (international inbound air cargo). The 9/11 Act further requires that the system provide a level of security commensurate with the level of security provided by the screening of passenger-checked baggage by August 2010.

TSA's approaches for securing domestic and international inbound air cargo work in tandem to create a system in which 100-percent of cargo is screened before loading on passenger aircraft originating at airports in the United States and bound for the United States from international LPD airports. TSA and the air cargo industry met the 100-percent mandate for domestic uplift on August 3, 2010, and met the 100-percent mandate for international inbound air cargo on December 3, 2012. Beyond the 9/11 Act mandate, TSA continues to collaborate with U.S. Customs and Border Protection (CBP) and other relevant entities to enhance capabilities to identify and target high-risk or "non-trusted" shipments for enhanced screening.

Domestic

On August 3, 2010, DHS and the air cargo industry successfully met the 100-percent screening deadline for domestic uplift of air cargo through the implementation of the Certified Cargo Screening Program (CCSP) and other supporting security measures:

- **CCSP:** Under the CCSP, TSA-certified entities conduct cargo screening throughout the air cargo supply chain. The distribution of screening to a variety of off-airport locations allows industry to screen air cargo at earlier stages in the supply chain, mitigating potential bottlenecks at airports that could impede the flow of commerce.
- **Other Security Measures:** TSA continues to secure the domestic supply chain through the issuance of security programs; the use of TSA-certified, explosives detection canine (EDC) teams; the enforcement of compliance requirements; and the increase in approved air cargo screening technologies.

[1] 49 U.S.C. § 44901(g)(1).

International Inbound

As of December 3, 2012, TSA requires 100-percent screening of international inbound air cargo on passenger aircraft. Achieving 100-percent screening of all inbound air cargo carried on passenger aircraft fulfills a requirement of the 9/11 Act and further strengthens global supply chain security. In addition, TSA has implemented the automated, data-driven international bound "Trusted Shipper" concept for all-cargo air carriers, and requires them to screen 100-percent of all high-risk cargo to the same standards as those required for passenger air carriers. Key components of TSA's risk-based approach include:

- **Risk-Based Screening Processes:** Changes to the air carriers' security programs incorporated risk-based, tiered screening protocols for "trusted" and "non-trusted" shippers on the basis of established criteria related to the shipper's business relationships with air carriers and international freight forwarders, as well as shipper history, including volume and frequency of shipments. Shipments from shippers that are determined to meet the "Trusted Shipper" criteria are permitted to be screened in a variety of cargo configurations, including skid-level cargo when the cargo is homogenous, using all approved screening methods, whereas shipments from a "non-trusted" shipper must be screened at the piece-level using enhanced screening protocols.
- **Air Cargo Advance Screening (ACAS) Pilot:** Looking forward, TSA seeks to enhance the identification of high-risk shipments on the basis of an analysis of pre-departure data on air cargo shipments. Under the ACAS pilot, a joint TSA-CBP initiative, CBP's Automated Targeting System (ATS) assesses advanced security filing cargo data on the shipper and the shipment for risk before the cargo is transported on the aircraft, enabling TSA-CBP to identify non-trusted or high-risk shipments that require enhanced screening.
- **National Cargo Security Program (NCSP):** NCSP recognition leverages foreign government security programs whose security measures TSA has determined meet or exceed current U.S. air cargo supply chain security standards, including the type of technology used to conduct the screening, the amount of cargo screened, and the processes used to resolve issues identified. These efforts will reduce any unnecessarily redundant security measures while ensuring screening and a high level of security for cargo shipments inbound to the United States.

TSA plans to use funding available under P.L. 113-76 to finance the following program initiatives:

- Air Cargo Screening Program;
- EDC teams at high-volume cargo airports and throughout the supply chain;
- U.S. and international transportation security inspectors to assess and verify industry compliance with TSA requirements at all applicable airports;
- Air cargo and mail-screening technology testing;
- ACAS pilot;

- NCSP recognition; and,
- National EDC Security Program (K9SP) recognition.

Air Cargo Fiscal Year 2014 Expenditure Plan

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I. Legislative Language

This document was compiled pursuant to language set forth in the *FY 2014 DHS Appropriations Act* (P.L. 113-76) and accompanying Joint Explanatory Statement, House Report 113-91, and Senate Report 113-77.

P.L. 113-76 states:

> TRANSPORTATION SECURITY SUPPORT
>
> For necessary expenses of the Transportation Security Administration related to transportation security support and intelligence pursuant to the Aviation and Transportation Security Act (Public Law 107–71; 115 Stat. 597; 49 U.S.C. 40101 note), $962,061,000, to remain available until September 30, 2015: *Provided*, That of the funds appropriated under this heading, $20,000,000 may not be obligated for "Headquarters Administration" until the Administrator of the Transportation Security Administration submits to the Committees on Appropriations of the Senate and the House of Representatives detailed expenditure plans for air cargo security, checkpoint support, and explosives detection systems refurbishment, procurement, and installations on an airport-by-airport basis for fiscal year 2014: *Provided further*, That these plans shall be submitted not later than 60 days after the date of enactment of this Act.

The Joint Explanatory Statement includes the following provisions:

> Expenditure Plans for Purchase and Deployment of
> Explosive Detection Equipment
>
> The bill withholds $20,000,000 from obligation for Headquarters Administration until TSA submits to the Committees, not later than 60 days after the date of enactment of this Act, detailed expenditure plans for fiscal year 2014 for air cargo, checkpoint security, and EDS refurbishment, procurement, and installations on an airport-by-airport basis. The withholding is included to encourage timely submittal of materials necessary for robust and informed oversight. As described in the House and Senate reports, the plans shall include specific technologies for purchase; program schedules and major milestones; a schedule for obligation of the funds; recapitalization priorities; the status of operational testing for each passenger screening technology under development; and a table detailing actual versus anticipated unobligated balances at the close of the fiscal year. The plan shall also include details on passenger screening pilot programs that are in progress or being considered for implementation in fiscal

year 2014. As described in the Senate report, information in this section is to include a summary of each pilot program.

House Report 113-91 states:

> Expenditure Plans for Purchase and Deployment of Air Cargo, Checkpoint Support and Explosive Detection Equipment
>
> The Committee withholds $20,000,000 from TSA Headquarters Administration and continues bill language requiring TSA to provide a detailed spending and deployment plan for air cargo, checkpoint support, and explosive detection equipment within its fiscal year 2015 congressional budget justification. This plan shall be submitted not later than 60 days after the date of enactment of this Act, and shall include: expenditures on an airport-by-airport basis for fiscal year 2013, including details on technologies purchased; project timelines; obligation schedules; and a table displaying actual versus anticipated unobligated balances at the close of the fiscal year, with an explanation for any deviation from original plans. TSA shall notify the Committee prior to any amendments to its expenditure plan and shall update the Committees semiannually on expenditures under the plan.

Senate Report 113-77 states:

> The Committee includes statutory language under "Transportation Security Support" restricting $20,000,000 from being obligated for headquarters administration until TSA submits to the Committee, no later than 60 days after the date of enactment of this act, an expenditure plan on the allocation of air cargo funds, including carryover balances. Due to delays in receiving the air cargo expenditure plan in prior years, the withholding is included to encourage timely submissions of materials necessary for robust and informed oversight.

II. Background

The 9/11 Act requires "the Secretary [of Homeland Security] to establish a system to screen 100-percent of cargo transported on passenger aircraft," including both domestic and international inbound air cargo, to provide a level of security commensurate with the level of security for the screening of passenger-checked baggage by August 2010.[2] On August 1, 2010, the air cargo industry successfully met the 100-percent screening deadline for domestic air cargo. On December 3, 2012, the air cargo industry successfully met the 100-percent screening deadline for international inbound air cargo transported on passenger aircraft.

Since FY 2008, TSA has explored and implemented several initiatives to establish a system for 100-percent screening of domestic air cargo transported on passenger aircraft, as well as to facilitate the industry's capability to comply with these requirements and meet interim milestones. These initiatives include: (1) security program requirements, (2) the CCSP, and (3) EDC screening.

In FY 2014, TSA will focus air cargo resources toward ensuring continued compliance with the screening requirements for domestic and international inbound air cargo by:

- Continuing to require 100-percent screening of international inbound air cargo transported on all-cargo aircraft identified as high-risk;
- Expanding NCSP recognition, engagement, and outreach to the governments of foreign countries to evaluate air cargo and non-U.S. mail security protocols to determine if such programs provide a level of security commensurate with current U.S. air cargo supply chain security requirements and, thus, whether they may be recognized by TSA for implementation by affected air carriers;
- Expanding K9SP recognition engagement and outreach to the governments of foreign countries to evaluate EDC to determine if such programs provide a level of security commensurate with current U.S. requirements and, thus, whether they may be recognized by TSA for implementation by affected air carriers. In addition, TSA intends to make a decision about the continued use of Remote Explosives Scent Tracing or Remote Air Sampling Canine Olfaction (REST/RASCO) for cargo bound to the United States at these locations during the summer of 2014;
- Implementing all phases of the ACAS pilot for pre-departure risk assessment of international inbound air cargo, before loading the cargo on aircraft bound for the United States;
- Testing, evaluating, and qualifying new and existing technologies capable of, and appropriate for, screening specific commodities;

[2] 49 U.S.C. § 44901(g).

- Continuing outreach to stakeholders to better align global air cargo security standards and advance the supply chain approach toward securing international air cargo on passenger and all-cargo aircraft; and
- Utilizing a risk-based model to conduct inspections and critical tests of regulated entities to better focus domestic compliance resources in vulnerable or concerning areas of the supply chain.

III. Expenditure Plan

A. Total Requested Spending

The following table provides TSA's proposed allocation of $134.1 million in accordance with language in P.L. 113-76. The table outlines the appropriated amounts for FY 2014 and includes the FY 2013 Carryover and FY 2004 and FY 2005 Recoveries and Deobligations.

Total Available FY 2014 Funds under P.L. 113-76

Available Funds	Amount
FY 2014	$122.3 million
FY 2013 Carryover	$6.8 million
FY 2004 and FY 2005 Recoveries and Deobligations*	$5.0 million
Total	**$134.1 million**

* As detailed in the FY 2013 Fourth Quarter Recoveries and Deobligations Report to Congress.

Funding from FY 2014 and FY 2013 Carryover will be allocated to enhance several key elements of TSA's multi-layered approach for 100-percent screening of air cargo flown on passenger aircraft. A breakdown of this funding is as follows:

Allocation of FY 2014 Enacted Funding, FY 2013 Carryover, and No Year Recovery Funds

Activity	Planned Expenditures ($ in millions)	Detailed Breakdown in Paragraph
Air Cargo Screening Program	$25.8	III.B.
Canine Teams at High-Volume Cargo Airports and throughout the Supply Chain	$24.8	III.C.
Air Cargo Inspections	$73.1	III.D.
Air Cargo and Mail Screening Technology Testing	$10.4	III.E.
Total	**$134.1**	

B. Air Cargo Screening Program

100-percent Domestic Screening

To satisfy the domestic air cargo screening requirements of the 9/11 Act, TSA implemented screening programs for cargo originating at U.S. locations that enable cargo screening to be

conducted throughout the supply chain by TSA-approved aircraft operators and certified cargo screening facilities (CCSFs).

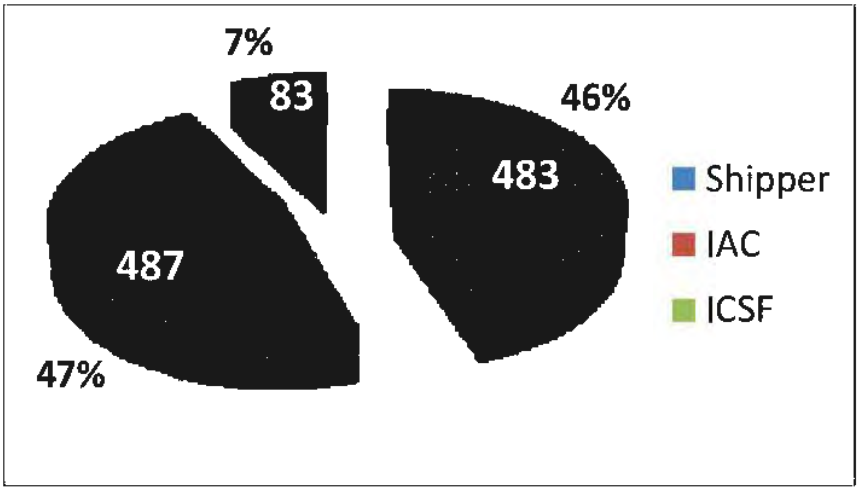
TSA's approach to accomplishing the screening mandate for domestic air cargo was achieved by:

- Implementing security program revisions to require 100-percent screening of cargo transported on narrow-body aircraft by October 1, 2008; 50 percent domestic screening by February 1, 2009; 75-percent domestic screening by May 1, 2010; and 100-percent domestic screening no later than August 1, 2010;
- Creating, in 2008, the CCSP, which allows entities such as shippers, manufacturers, and indirect air carriers (IACs) to screen cargo at points upstream in the air cargo secure supply chain, before tendering to an air carrier for transport on passenger aircraft;
- Publishing on September 16, 2009, an interim final rule (IFR) that established the CCSP and, on August 18, 2011, the Air Cargo Screening final rule, which carried forth the framework for the CCSP and made a few changes in the requirements from the IFR; and
- Approving additional air cargo screening technologies for use by industry.

CCSP

TSA's CCSP continues to play an integral role in ensuring compliance with the 100-percent screening mandate domestically, enabling TSA-certified IACs, shippers, and independent cargo screening facilities (ICSFs) to screen cargo along the supply chain. As of January 2014, 1,053 program participant locations were certified by TSA as CCSFs under the CCSP, including 487 IACs, 483 shippers, and 83 ICSFs.

CCSP Entities by Type, January 2014



CCSFs are required to be recertified every 36 months. The recertification process requires CCSFs to submit an application for renewal to TSA within 90 days of the expiration date for their current certification. Upon receipt of this renewal application, the TSA IAC-CCSF program office performs a revalidation of operations using inspection data provided from Transportation Security Inspector – Cargo (TSI-C) onsite inspections, and verification of business legitimacy. More than 85 percent of facilities eligible for recertification as CCSFs have elected to have TSA recertify their screening operations for another 36 months, with more than 850 locations recertified to date. In FY 2013, TSA recertified 400 CCSFs. During FY 2014, TSA will continue to review and recertify applicants and maintain oversight of the program to ensure the continuation of a robust and quality CCSP.

100-percent International Inbound Screening

As previously mentioned, TSA has required 100-percent screening of international inbound passenger air cargo since December 2012. TSA's risk-based approach for industry to achieve this mandate includes security program requirements and NCSP recognition. International Transportation Security Specialists (TSSs) ensure passenger and all-cargo air carriers' compliance with TSA-accepted or -approved security programs.

Under its NCSP recognition process, TSA conducts a comprehensive review to assess whether a foreign government's air cargo security program provides a level of security that is commensurate with or exceeds the level of security provided by current U.S. standards for air cargo security. TSA primarily is focusing on those countries with a significant volume of air cargo inbound to the United States, while also considering additional factors for country prioritization, such as the number of airports in the country from which cargo originates, and criticality of the country as a transshipment point for significant volumes of cargo bound for the United States. NCSP recognition will reduce the burden on air carriers by eliminating duplicative requirements between the two countries' security programs, while ensuring the screening of and high level of security for air cargo bound for the United States.

In addition, TSA assesses a foreign country's postal security requirements to determine comparability with current U.S. requirements for international air mail screening. Under TSA security programs, international (non-U.S.) mail is considered cargo and must be screened in accordance with the standards established under the 9/11 Act. TSA continues to make progress engaging international stakeholders by incorporating mail security requirements as part of the NCSP recognition process. The NCSP process includes discussions with appropriate authorities, such as designated postal operators, who administer the security measures for the international mail supply chain.

Finally, NCSP recognition enables TSA to leverage the host government's oversight capabilities to verify air carrier screening operations and data. As of January 2014, TSA has established NCSP recognition with 37 countries that includes all 28 European Union (EU) Member States,

Switzerland, Japan, New Zealand, Canada, Australia, Israel, the Republic of Korea, South Africa, and Iceland.

Although all-cargo air carriers are not subject to the 100-percent screening requirements of the 9/11 Act, all cargo determined to be high-risk, on the basis of a review of information about the shipper and the shipment, must undergo the stringent screening protocols before being loaded for transport on both passenger and all-cargo aircraft. TSA prioritizes air carrier inspections at the highest-risk international locations.

ACAS

In FY 2013, TSA and CBP continued to engage industry and implement the ACAS pilot, which was initiated to explore the feasibility of collecting pre-departure information on international inbound air cargo, and of assessing the risk of that cargo. TSA and CBP have set up a joint targeting effort at the National Targeting Center-Cargo (NTC-C), which utilizes CBP's ATS. Participants in the pilot include express all-cargo, passenger, and heavy all-cargo aircraft operators, as well as international freight-forwarders. The pilot is being conducted in a multi-phased approach, allowing for the refinement of targeting methodologies and the establishment of appropriate communication systems to enable pre-departure air cargo data collection and response. Under the Trusted Shipper concept, the air carrier determines whether the shipper is "trusted" by validating that the shipper meets TSA's established criteria. Once ACAS is fully implemented, TSA and CBP will make a determination on Trusted Shipper status and enhanced screening requirements by assessing the data submitted by the carrier or participant using risk concepts developed in CBP's ATS.

In FY 2014, TSA and CBP will work to fully automate the operational messaging that determines the appropriate level of screening for given shipments through incorporation of TSA's Trusted Shipper concept into the pilot's comprehensive risk assessment model. TSA will work with CBP on finalizing the notice of proposed rulemaking for data submissions.

All-Cargo Screening

In response to the October 2010 attempt to conceal explosives in shipments aboard all-cargo aircraft bound for the United States from Yemen, TSA issued security directives (SDs) and emergency amendments (EAs), which, among other measures, required enhanced screening of "non-trusted" international inbound air cargo transported on all-cargo aircraft. TSA is planning to revise the all-cargo Standard Security Programs (SSPs) to incorporate the enhanced screening protocols for cargo transported on all-cargo aircraft, established through the post-Yemen SDs and EAs.

Information Technology (IT) Systems

TSA will continue to maintain, develop, and improve its IT systems used to implement and manage regulatory requirements for its Air Cargo Screening Program, including the Cargo Reporting Tool (CRT), the Known Shipper Management System (KSMS), and the Indirect Air Carrier Management System (IACMS):

- CRT enables CCSFs to submit monthly cargo screening data to demonstrate compliance with the 100-percent screening mandate. In FY 2014, CRT will be migrated to the TSA operating platform to increase performance and security.
- KSMS, which supports TSA's Known Shipper Program, provides a systematic approach to assess risks and determine the legitimacy of companies located in the United States whose cargo will be shipped on passenger aircraft. KSMS enables IACs and air carriers to electronically submit shipper data to TSA for review, and manages the repository of shippers for industry after they have been considered "known" by TSA. In FY 2014, TSA plans to update the core software, which will enable KSMS to be more adaptable to industry submissions that are received with unique addresses. This also will decrease processing times.
- IACMS provides industry the ability to submit applications to become certified and to be recertified as an IAC, as well as the ability to request security threat assessments (STAs) for IAC personnel. IACMS processes approximately 150 new IAC applications and 350 certification renewals monthly. In FY 2014, TSA plans to add the functionality for IACs to assign multiple security coordinators at the station level to assist industry with processing and managing STAs and other security-related issues.

TSA's Data Application Tool, which hosts corporate profile information, and the STA Tool for CCSF personnel will be maintained under the Operations and Maintenance program. TSA will continue to provide adjudication of STA results, facilitate redress processes, and vet the IAC, CCSP, and other TSA-regulated populations.

Standardized Cargo Screener Training Program

In November 2010, TSA updated CCSP training materials and made them available to industry in February 2011. These training materials provide the basic CCSP program training requirements for use by IACs, shippers, and ICSFs certified by TSA. This updated version of training materials has simplified training delivery with the goal of enhancing industry adoption of TSA-generated training material, as well as air cargo screening program knowledge, retention, and adherence to regulations/compliance. In June 2012, TSA streamlined the CCSP screening technology training, including modules in support of screening performed by aircraft operators and foreign air carriers. In FY 2014, TSA plans to enhance current CCSP training. The enhancements include but are not limited to: visual aids, consolidated and concise training materials, and responsive and interactive pages. Students will have enhanced knowledge test pages to validate their proficiency. The training will address the following areas of the SSPs:

- Facility Security Control;
- Chain of Custody;
- Improvised Explosive Device;
- Physical Search;
- Securing Unit Load Device Pallets/Containers and Skids;
- Facility Security Coordinator Responsibilities;
- CCSF Employees' Qualifications; and
- Screening Technology – X-Ray/Advanced Technology (AT) X-ray systems, Explosives Detection Systems (EDSs), Electronic Metal Detection (EMD) systems, and Explosives Trace Detection (ETD) devices.

TSA proactively is conducting outreach to IACs, shippers, and ICSFs across the United States to provide information on and promote the use of standardized cargo screener training materials, which are designed to ensure that all air cargo personnel are aware of major threats to security, and how to address them successfully. As of December 2013, in support of this effort, TSA has conducted 142 visits to different CCSF and IAC locations. In FY 2014, TSA plans on a robust outreach effort for IAC and CCSP entities. TSA plans to conduct a minimum of three training seminars at gateway airports where a large spectrum of small to large IAC and CCSPs entities reside. TSA anticipates approximately 400 participants for each session.

Air Cargo Vulnerability Assessment Program

Through the Air Cargo Vulnerability Assessment Program, TSA Vulnerability Assessment Teams (VATs), made up of experienced TSA field and headquarters personnel, assess the air cargo supply chain nodes, all-cargo aircraft operators, passenger aircraft operators, IACs, known shippers, CCSFs, and authorized representatives for vulnerabilities. TSA has conducted 2,949 air cargo supply chain facility assessments at all 28 Category X airports and 11 of the largest Category I airports. This represents nearly 100 percent of the volume of cargo handled by air carriers in the United States, and approximately 80 percent of the volume of cargo handled by IACs and trucking companies in the United States. The VATs use a seven-step risk assessment and analysis process:

- Define the Scope (including areas where regulatory requirements and security best practices converge);
- Identify Consequence/Impact;
- Assess Threats;
- Assess Vulnerabilities (by measuring the presence of more than 250 countermeasures, divided into 20 categories such as Visitor Control, Screening of Cargo, and Tamper-Evident Technology);
- Analyze Risk and Create Reports;
- Manage Risk – accomplished through partnership with participant facilities, Federal Security Directors, and TSA Headquarters (HQ); and
- Evaluate Effectiveness and Reassess – through partnership with TSA HQ branches.

TSA will continue to conduct air cargo vulnerability assessments throughout the country at Category X and Category I airports representing the greatest volume of air cargo for both all-cargo and passenger flights. The overall results of the assessments also will be used to evaluate TSA air cargo policies, create new air cargo security policies for enhanced and targeted security requirements and initiatives, and identify industry best practices. The results of the assessments also are shared with other TSA organizations, including the TSA Risk Knowledge Center, Office of Security Operations (OSO) Cargo Compliance Oversight, and Office of Security Policy and Industry Engagement organizations to support risk-based security. Additionally, the TSA Office of Inspections (OOI), Special Operations Division, ensures the integrity and effectiveness of TSA's air cargo security programs and screening process by identifying vulnerabilities in the transportation systems through covert testing.

Allocation of FY 2014 Enacted Funding and FY 2013 Carryover Funds

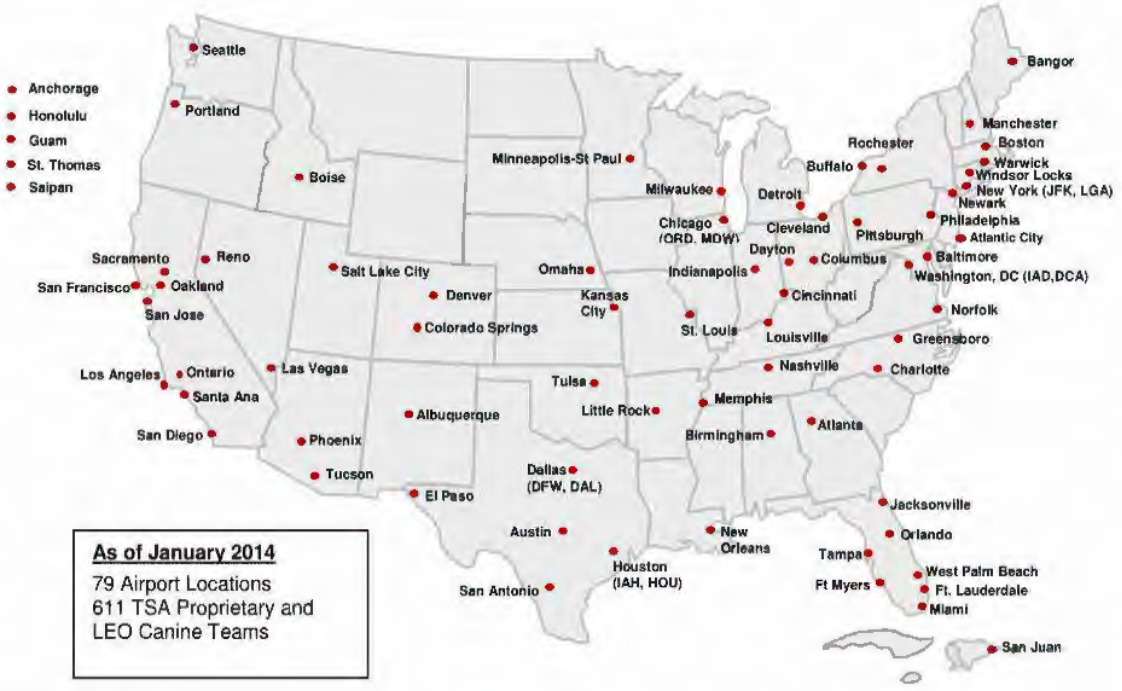
Detailed breakdown of allocation	FY 2014 ($ millions)	FY 2013 Carryover ($ millions)
Air cargo policy staff (70 full-time equivalents) to support policy and program development and related legal services*	$9.1	$0.0
Air cargo covert testing	$1.3	$0.0
Program management and IT support for development, enhancements, and operations and maintenance of screening subsystems	$12.3	$3.1
Subtotal	$22.7	$3.1
Total	**$25.8 million**	

*Beginning in FY 2013, vetting services are funded by STA fee funds.

C. Canine Teams at Airports and Throughout the Supply Chain

In the air cargo environment, TSA currently employs two types of canine teams to screen cargo destined for transport on passenger aircraft: teams led by local law enforcement officers (LEOs), and proprietary (federal) teams led by TSA cargo inspectors. As of January 2014, a total of 611 canine teams (491 local LEO-led canine teams and 120 authorized federal canine teams) are allocated to 79 airport locations throughout the United States.

Canine Cargo Team Locations (January 2014)



LEO Canine Teams

TSA uses 491 local LEO-led canine teams, (b)(3):49 U.S.C. § 114(s) of their time in the air cargo environment and associated facilities providing a law enforcement presence and screening air cargo. In light of industry's continued compliance with the 100-percent screening requirement, TSA is evaluating the continued utility of canines in the air cargo environment.

Location and Number of Funded LEO Canine Teams

Locations*	Team Numbers	Locations	Team Numbers	Locations	Team Numbers
ABQ	(b)(3):49 U.S.C. § 114 (r)	FLL	(b)(3):49 U.S.C. § 114(r)	PBI	(b)(3):49 U.S.C. § 114(r)
ACY		GSN		PDX	
ANC		GSO		PHL	
ATL		GUM		PHX	
AUS		HNL		PIT	
BDL		HPD (IAH & HOU)		PVD	
BGR		IND		ROC	
BHM		JAX		RNO	
BNA		LAS		RSW	
BOI		LAX		SAN	
BOS		LIT		SAT	
BUF		MCI		SDF	
BWI		MCO		SEA	
CLE		MEM		SFO	
CLT		MHT		SJC	
CMH		MIA		SJU	
COS		MKE		SLC	
CPD (ORD & MDW)		MSP		SMF	
CVG		MSY		SNA	
DAL		MWAA (IAD & DCA)		STL	
DAY		OAK		STT	
DEN		OMA		TPA	
DFW		ONT		TUL	
DTW		ORF		TUS	
ELP		PAPD (EWR, JFK & LGA)			
Totals	169		191		**131**
Grand total					**491**

*See Appendix A for Airport Codes – Canine Team Locations by Name

TSA Proprietary Canine Teams

TSA proprietary canine teams primarily are dedicated to screening air cargo at airports with a high volume of originating air cargo. Although aircraft operators and CCSP participants are responsible for screening 100-percent of air cargo transported on passenger aircraft, these teams

are important additions to the screening program as an additional layer of security, providing random secondary screening to counter any insider threat.

All teams are in various levels of training, and as the following table shows, 96 of the 120 total teams are considered certified to screen cargo. This means that under TSA reporting requirements for screened cargo, aircraft operators may count cargo screened by these certified teams as screened cargo. Canine teams can be the primary screening layer for outbound cargo. However, this is not scheduled or routine activity. For example, an air carrier may request TSA canine assistance when it has an unexpected malfunction in its cargo screening equipment, or if it receives an irregularly shaped item that cannot be properly screened by its equipment. TSA is evaluating the continued need for operations in the cargo environment and how to optimize the security benefits for the cargo program.

Certified Canine Teams, as of January 2014

Airport*	Total Allocation	Certified
ATL	(b)(3):49 U.S.C. § 114(r)	
BOS		
DFW		
DTW		
EWR		
HNL		
IAD		
IAH		
JFK		
LAX		
MIA		
ORD		
PHL		
SEA		
SFO		
Total	**120**	**96**

*See Appendix A for Airport Codes – Canine Team Locations by Name

As part of TSA's risk-based, layered security approach, canine teams conduct random security sweeps to detect or deter explosive threats where cargo is staged, consolidated, or otherwise prepared for transport. Canine teams conduct random patrols at various areas within the cargo environment during peak and non-peak hours. As part of the risk-based security initiative, Security Index Scores (SISs) are used to identify higher-risk cargo to screen (versus randomly screening cargo). By using this approach, canine teams are able to focus screening efforts on cargo that poses greater risk.

A variety of factors affect canine screening statistics, including the time of month a team is certified,[3] the level of acclimation assistance required by area teams, and the amount of cargo available to be screened at any given time, which can vary seasonally by airport. The following graphs show the month-to-month trends in TSA proprietary canine screening over a 12-month period:

Total Pieces Screened by Month by TSA Proprietary Canines - CY 2013

(b)(3):49 U.S.C. § 114(r)

Total Pounds Screened by Month by TSA Proprietary Canines - CY 2013

(b)(3):49 U.S.C. § 114(r)

The preceding table shows the total pounds screened per month for Calendar Year (CY) 2013, per the current data available. TSA proprietary canine teams collectively screen an average of (b)(3):49 U.S.C. § 114(r) cargo uplifted at the top 15 U.S. airports. Following are the trends for canine screening contributions during the same time period:

[3] Canine teams are certified annually. The certification evaluation takes 4 days to complete.

(b)(3):49 U.S.C. § 114(r)

Overall uplift at the top 15 originating cargo locations for December 2013 is identified in the following table:

Cargo Uplift at Top 15 Originating Locations, December 2013

Airport Code	Airport Name	CAT	December 2013 (cargo volume in pounds)
ATL	Hartsfield-Jackson Atlanta International	X	8,489,334
BOS	Boston Logan International	X	9,005,680
DFW	Dallas/Fort Worth International	X	5,104,736
DTW	Detroit Metropolitan Wayne County	X	4,470,751
EWR	Newark Liberty International	X	10,615,775
HNL	Honolulu International	X	7,236,734
IAD	Washington-Dulles International	X	10,367,758
IAH	Houston Intercontinental	X	11,082,900
JFK	John F. Kennedy International	X	45,230,634
LAX	Los Angeles International	X	46,701,753
MIA	Miami International	X	22,896,757
ORD	Chicago-O'Hare International	X	26,207,079
PHL	Philadelphia International	X	3,962,118
SEA	Seattle-Tacoma International	X	6,874,680
SFO	San Francisco International	X	15,938,669
	Total (volume in pounds)		**234,185,358**

Allocation of FY 2014 Enacted Funding and FY 2013 Carryover Funds

Detailed breakdown of allocation	FY 2014 ($ millions)	FY 2013 Carryover ($ millions)
Program staff (17) and trainers/evaluators supporting the canine initiatives	$1.6	$0.0
Payroll, compensation, and benefits for 120 proprietary canine team handlers and 12 OSO HQ staff	$15.7	$0.0
Travel for inspection, program oversight	$0.5	$0.0
State and local cooperative agreements for LEO-led canine teams	$5.2	$0.0
Program support services, vehicle maintenance and fuel, equipment, and supplies	$1.5	$0.3
Subtotal	$24.5	$0.3
Total	**$24.8 million**	

D. Air Cargo Inspections

Domestic TSIs-C

TSA TSIs-C perform compliance inspections, which include Special Emphasis Inspections (SEIs), focused inspections, air cargo surges (1 to 2 week-long compliance inspection and enforcement activities focused on IACs, aircraft operators, and CCSFs within a single metropolitan area), and investigations and tests of aircraft operators, CCSFs, and IACs. TSA TSIs-C also perform educational outreach to assist aircraft operators, CCSFs, and IACs in complying with air cargo security mandates. TSIs-C are located at 121 airports with high cargo volumes in the United States.

TSIs-C Staffing Levels

TSA is authorized to hire 500 TSIs-C. As of February 2014, 469 TSIs-C have been hired, trained, and deployed.

SEIs and Focused Inspections

SEIs are inspections that focus on areas of air cargo security that have been identified as vulnerabilities through regular inspection efforts. SEIs involve both covert and overt tests, coordinated inspections, and, when appropriate, more robust enforcement actions. Compliance SISs are used to focus SEIs on higher-risk entities. The results of SEIs are used to identify a baseline of compliance within the specific vulnerabilities to assist in driving future TSA cargo

security inspection and testing activity. Numerous SEIs are conducted yearly to ascertain if efforts are improving compliance rates.

TSA conducts quarterly SEIs focused on realistic scenarios and previously identified vulnerabilities. TSA completed the same SEIs from FY 2009 through FY 2011 so that yearly compliance trends could be compared. As a result of the continued SEI initiatives, there has been an increase in the compliance rate for these specific focused inspections. As indicated in the following chart, the compliance rate improved in all non-intelligence-driven SEI areas tested:

SEI Compliance, FY 2009–FY 2011

SEI	FY 2009	FY 2010	FY 2011
STA Inspections	1,228 inspections	1,463 inspections	1,437 inspections
	(b)(3):49 U.S.C. § 114(r)		
Alternative Screening/Medical Shipments	536 inspections	679 inspections	723 inspections
	(b)(3):49 U.S.C. § 114(r)		
Invalid IAC Certificates	819 inspections	860 inspections	CCSF SEI was completed in FY 2011 instead of IAC Certificates
	(b)(3):49 U.S.C. § 114(r)		
Access Controls	2,017 total inspections	1,592 total inspections	1,563 inspections
	(b)(3):49 U.S.C. § 114(r)		

Starting in FY 2012, SEIs became increasingly driven by intelligence and risk-based security measures. Because of this change, SEIs have been implemented on the basis of multiple risk-based factors. SEIs have been conducted on entities that have multiple locations throughout the United States and have been identified as having systemic instances of non-compliance with the security programs. Additionally, two SEIs have been conducted as joint initiatives with other federal agencies. As a result of the continued SEI initiatives, there has been an increase in the compliance rate for these specific focused inspections.

SEI Compliance, FY 2012–FY 2013

	Targeted Intelligence-Driven SEIs			
FY 2012	14 inspections (focused (b)(3):49 U.S.C. § 114 (r)	Cargo Acceptance test conducted with Federal Aviation Administration, 290 inspections.	Intelligence-driven SEI on specific IACs conducted, 61 inspections.	Intelligence-driven SEI on specific IACs conducted, 132 inspections.
	(b)(3):49 U.S.C. § 114(r)			
FY 2013	Intelligence-driven SEI on specific IACs conducted, 74 inspections.	Intelligence-driven SEI on screening of International Inbound Air Cargo, 172 inspections.	Intelligence-driven SEI on control and custody procedures, 331 inspections	Intelligence-driven SEI on specific air carrier screening, 4 inspections
	(b)(3):49 U.S.C. § 114(r)			

TSIs-C also test cargo acceptance requirements under the Known Shipper Program throughout the year. The Known Shipper Program sets forth requirements that apply in the United States, only permitting cargo to be transported on passenger aircraft tbat is accepted from persons who are identified as known shippers; this component is an integral aspect of TSA's layered approach to air cargo security. To achieve "known" status, the business legitimacy of a shipper must be reviewed by TSA. In FY 2013, TSIs-C conducted more than 6,000 small package tests with a national compliance rate of (b)(3):49 U.S.C. § 114(r) TSIs-C conduct investigations of all small package test failures to determine the cause of non-compliance, including referring potential criminal cases to TSA's OOI. TSA will continue this small package testing in FY 2014. In addition, TSA will focus SEIs on CCSF locations throughout the country to determine compliance with CCSP requirements for the handling, screening, and security of CCSF cargo.

Cargo Screening Assessment Program (CSAP)

CSAP is a combination of covert and overt testing of cargo screening procedures. CSAP tests are conducted on domestic and foreign air carriers, IACs, and CCSFs. CSAP has two primary goals: 1) to measure screener performance through testing using realistic improvised explosive device (IED) simulations and standardized testing protocols, and 2) to identify potential vulnerabilities in the current processes and procedures. As a result of the CSAP, TSA is better able to analyze test results at a national level to identify trends, vulnerabilities, and strengths across the system.

Air Cargo Surge/Augmentation Activities

Cargo Surges are compliance augmentation activities focused on IACs, air carriers, and CCSFs in a single metropolitan area. In FY 2014, TSA is using a risk-based approach for scheduling surges, such as in response to intelligence information and supporting national security events

(for example, national political conventions), plus attention is given to top cargo volume airports. Recent enhancements to the Cargo Surge program include:

- Routine TSA Office of Intelligence and Analysis briefings related to cargo are provided to inspectors and government participants.
- Emphasis on direct observation of cargo screening.
- A mobile screening checkpoint for personnel in secure cargo areas.
- Security Identification Display Area badge audits.
- Addition of TSA Office of Inspections, TSA proprietary canine teams, and TSA Transportation Security Officers to cargo surge teams. Many teams also include federal, state, and local stakeholders, as well as law enforcement.
- As a force multiplier and to supplement local air cargo security surge activities, a coordinated effort was developed between the Visible Intermodal Prevention and Response (VIPR) teams, and related activities, with local air cargo security activities. VIPR teams work with local security and law enforcement officials, for example, to supplement existing security resources, provide deterrent presence and detection capabilities, and introduce an element of unpredictability to disrupt potential terrorist planning activities. The VIPR teams, which also consisted of Compliance Aviation and Surface assets, worked with TSIs-C to support each other's mission and allow for overt, visible appearance of inspectors, along with other government agency enforcement and regulatory personnel, to prevent and deter threats. If a legal, terrorist, or regulatory concern was discovered, the correct agency would lead the effort.

To date in FY 2014, Cargo Surges have occurred at three airports. The following chart depicts a summary of the Cargo Surges that have occurred to date in FY 2014:

Type	Inspections	Findings	Enforcement Investigative Reports	Inspections with Findings	Inspections without Findings	Compliance Rate
IAC SSP	58	(b)(3):49 U.S.C. § 114(r)				
CCSF-IAC (002)	87					
CCSP-Order	57					
Joint Agency Surge Force Operation	15					
Air Carrier	6					

The following chart depicts a summary of the 19 Cargo Surges scheduled during FY 2014:

FY 2014 Cargo Surge Locations

(b)(3):49 U.S.C. § 114(r)

TSIs-C Training Initiatives

In FY 2012, TSA enhanced its TSIs-C training with the implementation of the Transportation Security Inspector Advanced Cargo Course. The course provides an in-depth review of how to inspect the cargo screening process. It gives TSIs-C a more detailed exposure to cargo screening, including both physical and technology-based screening methods, as well as artful concealment of IEDs in cargo. TSA also used this course to introduce an enhanced inspection methodology for identifying high-risk cargo shipments that would undergo additional scrutiny before being transported on an aircraft.

TSIs-C continue to receive training in the following courses:

- *Transportation Security Inspector Basic Course – Cargo Week*: TSA reworked all Cargo Week modules to reduce redundancies, allowing instructors to spend more time on each concept, which has resulted in more advanced instruction. Additionally, TSA established a Cargo Lab, a mock IAC/CCSF facility equipped with screening technologies currently

in use by regulated entities. The facility is used during the instruction for an actual demonstration of the equipment and inspection processes.

- *Transportation Security Inspector Advanced Cargo Security Course*: The course provides an in-depth review of how to inspect the cargo screening process. It gives TSIs-C a more detailed exposure to cargo screening including both physical and technology-based screening methods, as well as artful concealment of IEDs in cargo. This course also provides instruction on the Cargo Risk Based Inspection Technique (CRBIT), which helps identify cargo that may pose a higher risk to the air transportation industry.
- *Cargo Workshop*: Practical application of the TSA enhanced inspection techniques for Cargo Inspectors integrating mentoring tools for Supervisors and Managers.

CRBIT

CRBIT was developed to assist the domestic TSIs-C with the identification of cargo that may pose a risk on the basis of indicators. Indicators are inconsistencies identified with a particular shipment. They can be as subtle as irregularities with the exterior of the packaging, or the number of cargo pieces tendered compared to actual piece count for uplift on aircraft. Indicators may be intelligence-driven, on the basis of local knowledge or other intelligence provided by the TSIs-C. The TSIs-C may engage TSA's Cargo Targeting Unit (CTU) jointly located at the NTC-C where information is shared from systems such as ACAS, which can support or refute inconsistencies with shipping information. Upon discovery of the indicators, the TSIs-C must attempt to refute those indicators. In the event the TSI-C is unable to refute the indicators, the cargo will be subject to a higher level of security before being transported on an aircraft. Currently CRBIT is a domestic effort; however, once training (which has been combined with a requirement to teach cargo screening technologies) is complete for all domestic TSIs-C, we will continue with our collaborative efforts by offering the course to international TSIs-C.

The major benefit of CRBIT is that it enables TSA to prioritize inspection efforts on cargo that is more likely to present a threat to air commerce. CRBIT will affect inspectors by placing them in cargo facilities more often, developing more effective regulatory practices, allowing for observation of cargo before transport, and creating a proactive regulatory environment. Compared to other inspection techniques such as reviewing documentation and interviewing persons after the cargo has already flown (which can be more forensic in nature), CRBIT is focused on the potential threat—the cargo with indications of risk, which requires mitigation before it is flown. CRBIT goes beyond looking at one regulated party and the party's compliance with TSA regulations by promoting detection, deterrence, and disruption of potential threats against the entire system of air cargo and our traveling public.

CRBIT and the Advanced Training Course has been commended by the Federal Aviation Administration and other internal TSA departments as a common-sense, risk-based approach to a complex cargo supply chain, which is designed to detect, deter, and disrupt threats.

Compliance Risk Assessment

In FY 2013, TSIs-C conducted more than 43,000 inspections at approximately 10,000 cargo facilities in the United States. TSA assigns each facility a risk score based on several factors, such as compliance with TSA security programs, results of enforcement investigations, and intelligence information. In FY 2013, TSA TSIs-C executed their mission as follows:

The FY 2014 Compliance Work Plan outlines goals for inspecting regulated entities on the basis of risk at the station level, in addition to the minimum entity inspection requirements. TSA calculates risk scores for aircraft operators (which include both passenger and all-cargo), IACs, and CCSFs. Risk scores, also known as SISs, are based on a regulated entity's compliance history and any intelligence information. These scores affect the frequency and type of inspection conducted by TSA. For example, an elevated SIS requires quarterly inspections based on "targeted" concerns such as derogatory information discovered by the NTC-C, past violation history, or findings of noncompliance with acceptance of cargo, access control, warehousing and transporting, and cargo screening. TSA has used SISs to focus inspector time during all field activities, including cargo surges, SEIs, and testing. At a high level, SISs direct inspection requirements as indicated in the following table:

Security Index Score Requirements by Risk Level

Security Index Scores	Air Carrier, CCSF, and IAC Inspection Requirements
Elevated Risk	Critical/Targeted Areas inspection and two focused tests
Moderate Risk	Supplemental Inspection (Focus on screening, if applicable, or on areas with previous findings. Additional tests at Assistant Federal Security Director - Inspections or Federal Security Director discretion)
Low Risk	Annual inspection (Focus on screening, if applicable. Additional visits/tests at Assistant Federal Security Director - Inspections or Federal Security Director discretion)

NTC-C and Cargo Targeting Unit Staffing

Since FY 2010, TSA has maintained a presence with CBP at the NTC-C to increase information sharing between TSA and other agencies involved in the identification and mitigation of high-risk cargo. The NTC-C is able to utilize known terrorist information received from National Targeting Center-Passenger and to conduct in-depth research in various systems to identify cargo shipments and businesses linked to these individuals. The CTU is staffed with expert TSIs-C and TSSs:

- *ACAS*: In FY 2011 and FY 2012, TSA staffed the NTC-C ACAS unit with 10 detailed TSIs-C, working side by side with CBP officers to target high-risk air cargo shipments as part of the ACAS pilot initiative. In FY 2013, TSA established a Cargo Programs Section that directly supported the ACAS program located at the NTC-C with permanent targeters. In FY 2014, the Office of Global Strategies (OGS) Cargo Compliance Office plans to take over management of the TSA ACAS unit with eight permanent targeters and one section chief.
- *Domestic Targeting*: In FY 2014, TSA plans to staff NTC-C with eight TSIs-C, one supervisor, one liaison, and one section chief (who also oversees the Cargo Programs Section) to focus on domestic cargo. TSIs-C will perform numerous tasks in support of the domestic cargo security mission including:
    - Conducting domestic security reviews of high-risk air cargo shipments referred from field inspectors during CRBIT activities;

- Assisting in cargo alarm resolution through research;
- Conducting in-depth research on new IAC and CCSF applicants;
- Conducting STA verifications for field inspectors and the Office of Law Enforcement Federal Air Marshal Service Investigations Risk and Analysis Division; and
- Developing inspection and testing protocols for Cargo Surges, using the various systems available to them to focus the surge activity on higher-risk entities.

In FY 2014, TSA CTU plans to leverage resources at the NTC-C to develop a Risk-Based Inspection Tool to be used to direct CRBIT and K9 risk-based activities.

International Cargo Inspections

During FY 2013, passenger flights from 140 foreign airports in 86 countries transported cargo to the United States. More than 3.5 billion pounds of cargo arrived on these conveyances and another 4.9 billion pounds was transported by all-cargo aircraft departing from 111 foreign airports in 60 countries. A significant amount of these cargo loads did not originate at these departure airports, but were initiated at locations sometimes two, three, or more airports before their final movement to the United States—necessitating a thorough understanding and verification of security measures of the cargo supply chain. Of particular concern is the preponderance of countries that currently screen cargo, but do not use the type of equipment or the specific techniques required by TSA. The additional Transportation Security Specialists – Cargo (TSSs-C) cadre has enabled TSA to conduct on-site visits at each location to determine whether the interim measures put in place by the airport or government sufficiently mitigate the ongoing threat.

TSA's OGS is charged with verifying the security measures applied to international inbound air cargo and does so through deployment of its TSSs-C. The verification procedures include a series of on-site audits of foreign airports, air carrier cargo facilities, and off-airport cargo sites. Verification procedures are conducted at foreign LPD airports at least annually, with interim activities scheduled for the higher-priority sites. These activities include reviews of each air carrier's quarterly self-audit, evaluation of all Regulated Agent and Authorized Representative Agreements, and proper use of approved screening methods.

In FY 2014 TSA has 61 international inspector positions. These field positions are distributed among the six regional operation centers, which are located in Miami, Dallas, Singapore, Frankfurt, Honolulu, and Northern Virginia.

TSA accomplished the following in FY 2013:

- 812 inspections of U.S. passenger aircraft operators;
- 484 inspections of foreign passenger air carriers;

- 221 inspections of U.S. all-cargo aircraft operators; and
- 107 inspections of foreign all-cargo air carriers.

These additional positions also enabled TSA to accomplish the following in FY 2013:

- *NCSP recognition*: An important facet of the approach to ensure 100-percent screening of international inbound air cargo transported on passenger aircraft involves leveraging foreign countries' cargo supply chain security requirements that TSA determines provides a level of security that meets or exceeds current U.S. air cargo supply chain security requirements. Through policy and program reviews, on-site discussions with foreign government cargo security authorities, and observations of cargo security activities across the supply chain, TSA is able to determine which NCSPs can be recognized. As of January 2014, TSA has established NCSP recognition with 37 countries that include all 28 EU Member States, Switzerland, Japan, New Zealand, Canada, Australia, Israel, the Republic of Korea, Iceland, and South Africa. Another five are in the process of being evaluated or are implementing the recommendations resulting from the on-site reviews. The priorities for NCSP outreach has expanded to include those countries from which a high volume of air cargo originates, such as China.
- *ACAS pilot*: This partnership with CBP involves obtaining manifest information on cargo destined for the United States well before being loaded on the inbound flight. TSA and CBP have developed response protocols that have been implemented when high-risk cargo is identified. Through this pilot and use of the risk identifiers developed within ATS, TSA is able to ascertain the countries that are the sources of the highest percentage and greatest number of potentially high-risk shipments. TSA has been able to calculate the level of risk associated with particular airports more accurately, and will deploy to those sites to physically observe response protocols and verify necessary actions, as appropriate, when the pilot becomes fully operational.

(b)(3):49 U.S.C. § 114(r)

- *K9SP recognition*: The effectiveness of canines in detecting certain explosives is widely recognized, and numerous countries and organizations have initiated programs to capitalize on this screening method. However, the capabilities of the various canine programs vary widely around the world. For example, not all programs are designed to detect the same types of explosives. During FY 2013, TSA developed a process for analyzing and potentially recognizing the capabilities of the existing EDC programs globally. TSA developed a K9SP recognition process and developed a prioritization strategy for international engagement with partner countries in order to recognize their respective canine programs. The K9SP recognition process is used to evaluate and

recognize K9SPs in foreign countries for use in aviation security, to include screening of air cargo, passengers and other individuals, checked baggage, and accessible property.

- *Strengthening international air cargo security requirements*: TSA expanded its outreach and engagement with the International Civil Aviation Organization (ICAO), the World Customs Organization, the Universal Postal Union, and influential Member States involved in each entity to strengthen supply chain security. Through the implementation of more robust international standards, TSA will ensure progress toward a more secure environment that does not slow or stall the movement of legitimate commerce. In FY 2013, TSA engaged significantly with ICAO to develop new Standards and Recommended Practices (SARPS) in the area of air cargo security that became effective for all ICAO Member States in July 2013.

During FY 2014, TSA intends to accomplish the following air cargo-related initiatives:

- *Enhance TSA's international targeting capability*: Establish OGS's presence at the NTC-C through the recruitment of a dynamic workforce, and develop an infrastructure to work closely with CBP and the OSO Cargo Targeting Unit to include comprehensive targeting data into OGS's risk analysis.
- *Expand NCSP recognition outreach, engagement, and oversight*: Priorities have been placed on analyzing NCSPs for those countries from which cargo is shipped directly to the United States. Additional countries continue to be engaged, evaluated, and assessed. In FY 2014, TSA will continue to conduct on-site post-recognition NCSP reviews of applicable non-air carrier supply chain entities to ensure their security procedures are consistent with the country's TSA-recognized NCSP, and address any inconsistencies discovered with the National Authority in coordination with the assigned TSA Representative. Additionally, TSA will ensure that 100 percent of the NCSP non-air carrier inspections are scheduled and conducted, except those locations where the Host Government or State Department denies access.
- *Expand K9SP recognition outreach and engagement*: Expand K9SP recognition engagement and outreach to the governments of foreign countries to evaluate EDC to determine if such programs provide a level of security commensurate with current U.S. requirements and, thus, whether they may be recognized by TSA for implementation by affected air carriers. In addition, TSA intends to make a decision about the continued use of REST/RASCO for cargo bound to the United States at these locations.
- *Institutionalize Customs-Trade Partnership Against Terrorism (C-TPAT) validations*: In FY 2014 TSA will develop a process in conjunction with CBP by which TSA will conduct C-TPAT validations for air carriers on behalf of CBP during normally scheduled TSA visits. This initiative must be memorialized within an agreed memorandum of understanding between TSA and CBP. Accordingly, a detailed process document must be developed to facilitate such visits by TSSs.
- *Enhance air carrier security requirements*: Work closely with internal and external stakeholders in efforts to enhance air cargo security requirements with a focus on

all-cargo operations. Additionally, continue efforts to address national government restrictions/prohibitions that hamper implementation of TSA air cargo security requirements by air carriers.

- *Refine international cargo security training and capacity development*: Update the Air Cargo Security Workshop module to provide requesting countries a comprehensive air cargo security capacity development course with an in-depth focus on ICAO SARPS and Security Manual. Additionally, continue development and pilot a "model/advanced" air cargo security supply chain workshop that reaches beyond the ICAO SARPs and Security Manual by leveraging the best practices of the U.S. and its international partners' air cargo security supply chains. Finally, TSA will collaborate with country partners in order to effectively administer training in common interest locations.

Allocation of FY 2014 Enacted Funding and FY 2013 Carryover Funds

Detailed breakdown of allocation against initiatives	FY 2014 ($ millions)	FY 2013 Carryover ($ millions)
Payroll, compensation, and benefits to hire, train, and support 500 TSIs-C + 19 HQ staff and analysts	$52.7	$0.0
Personnel cost for 61 international inspectors and staff	$7.0	$0.0
Travel, training, field inspection equipment, and vehicle maintenance	$11.1	$2.3
Subtotal	$70.8	$2.3
Total	**$73.1 million**	

E. Air Cargo and Mail Screening Technologies Testing

The TSA Air Cargo Screening Technology Program supports the qualification and evaluation of existing and emerging air cargo screening technologies and procedures to determine the suitability, effectiveness, and feasibility for use in the air cargo and mail screening environments. Cargo and mail screening presents unique challenges because of a wide variance in commodities shipped, volume, throughput, and facility characteristics for each screening entity. No single technology is appropriate for every screening scenario. TSA has authorized a suite of technologies and associated screening protocols from which screening entities may choose on the basis of their unique requirements and commodities.

TSA does not procure or deploy equipment for the air cargo industry. Rather, TSA publishes authorized screening equipment on the TSA Air Cargo Screening Technology List (ACSTL) on a secure Web site accessible by regulated parties. Therefore, industry may reference the current ACTSL when making its procurement decisions. TSA updates the ACTSL as needed (on average four times per year) in order to allow industry to remain current with new equipment or authorized configuration changes. The current TSA ACSTL includes 109 pieces of cargo

screening equipment. TSA has qualified 23 large aperture X-ray technologies for screening skid-level configurations.

TSA continues to evaluate the operational efficacy of these technologies to accommodate the cargo screening volumes currently required to support the 100-percent screening mandate. TSA also is evaluating other technologies for air cargo screening, including mass spectroscopy and palletized cargo screening systems, as well as supply chain integrity technologies. Outcomes of Transportation Security Laboratory testing, as well as Operational Utility Evaluation field testing and evaluation may result in modifications or additions to this list. TSA has issued screening protocols that detail screening methodologies for each technology type and provide guidance on which technologies can be used for specific commodity classes.

TSA is collaborating with the U.S. Postal Inspection Service (USPIS) to assess effective and suitable technologies for use in screening mail and courier bags transported on commercial aviation. Significant live explosives testing was conducted throughout FY 2013, and the final results are being reviewed and discussed with TSA and the USPIS.

TSA has authorized the use of the following technologies to screen air cargo. These technologies currently are being used by industry and TSA to screen air cargo on passenger aircraft unless otherwise noted:

- *ETD Devices*: These devices are able to detect explosive particles on items intended to be transported as air cargo. The process detects trace amounts of explosives transferred to an object or package when a terrorist packs explosives. The system is composed of a sampling medium (swab), an optional sampling wand to hold the medium during the screening process, and a processing unit to analyze the sample medium for explosive particles.
- *X-Ray and AT X-Ray*: Both types of systems penetrate cargo with X-rays to produce and display images of the cargo contents. X-ray screening technology includes systems that allow a qualified operator to ascertain the presence or absence of a threat without automated or assisted functionality. AT X-Ray systems incorporate at least two distinct primary views—not in the same plane—and offer material discrimination functionality, such as the ability to distinguish between organic, inorganic, and metallic materials. These systems typically include a variety of manual functions to assist in interpretation, such as color options, image enhancements, and zoom capabilities.
- *EDS*: EDSs are automated devices or combinations of devices qualified by TSA as having the ability to detect amounts, types, and configurations of explosive materials. These devices use rotating X-ray tubes and detectors to create cross-sectional images (or slices) of an object. Software assembles images of the individual slices to build a three-dimensional image of the object. EDSs are able to calculate mass and density of any individual object and will automatically produce an alarm if the object's mass or density falls into the range typical for explosive threats.

- *EMD Devices*: EMD devices are non-intrusive inspection systems designed to screen non-metallic cargo for metallic components.

Allocation of FY 2014 Enacted Funding and FY 2013 Carryover Funds and No Year Recovery Funds

Detailed breakdown of allocation	FY 2014 ($ million)	FY 2013 Carryover ($ million)	FY 2004 and FY 2005 Recoveries and Deobligations*
Testing, evaluation, and qualification of existing and new technologies for use in air cargo and mail with new cargo screening requirements	$4.3	$1.1	$5.0
Subtotal	$4.3	$1.1	$5.0
Total	**$10.4 million**		

* Per Section 515 515 of the Consolidated and Further Continuing Appropriations Act, 2013 (P. L. 113-6), "funds appropriated or transferred to Transportation Security Administration ''Aviation Security,'' ''Administration,'' and ''Transportation Security Support'' for fiscal years 2004 and 2005 that are recovered or deobligated shall be available only for the procurement or installation of explosives detection systems, air cargo, baggage, and checkpoint screening systems, subject to notification."

DHS Action Plan for International Inbound Air Cargo

On December 3, 2012, through ongoing implementation efforts and improvements to its air cargo security initiatives, TSA achieved 100-percent screening for international inbound air cargo on passenger flights. In FY 2014, TSA will focus air cargo resources toward ensuring continued compliance with the screening requirements for domestic and international inbound air cargo by:

- Continuing to require the screening of 100 percent of high-risk international inbound air cargo transported on all-cargo aircraft;
- Implementing all phases of ACAS for pre-departure risk assessment of international inbound air cargo;
- Testing, evaluating, and qualifying new and existing technologies capable of, and appropriate for, screening specific commodities;
- Expanding NCSP outreach and engagement to foreign countries to evaluate air cargo and mail security protocols to determine if such programs provide a level of security commensurate with the level of security provided by current U.S. air cargo supply chain security requirements, and thus whether they may be recognized by TSA for implementation by affected air carriers; and
- Continuing outreach to stakeholders to better align global air cargo security standards and advance the "supply chain screening" approach toward 100-percent screening of international inbound air cargo on passenger aircraft.

IV. Appendices

Appendix A. Airport Codes – Canine Team Locations

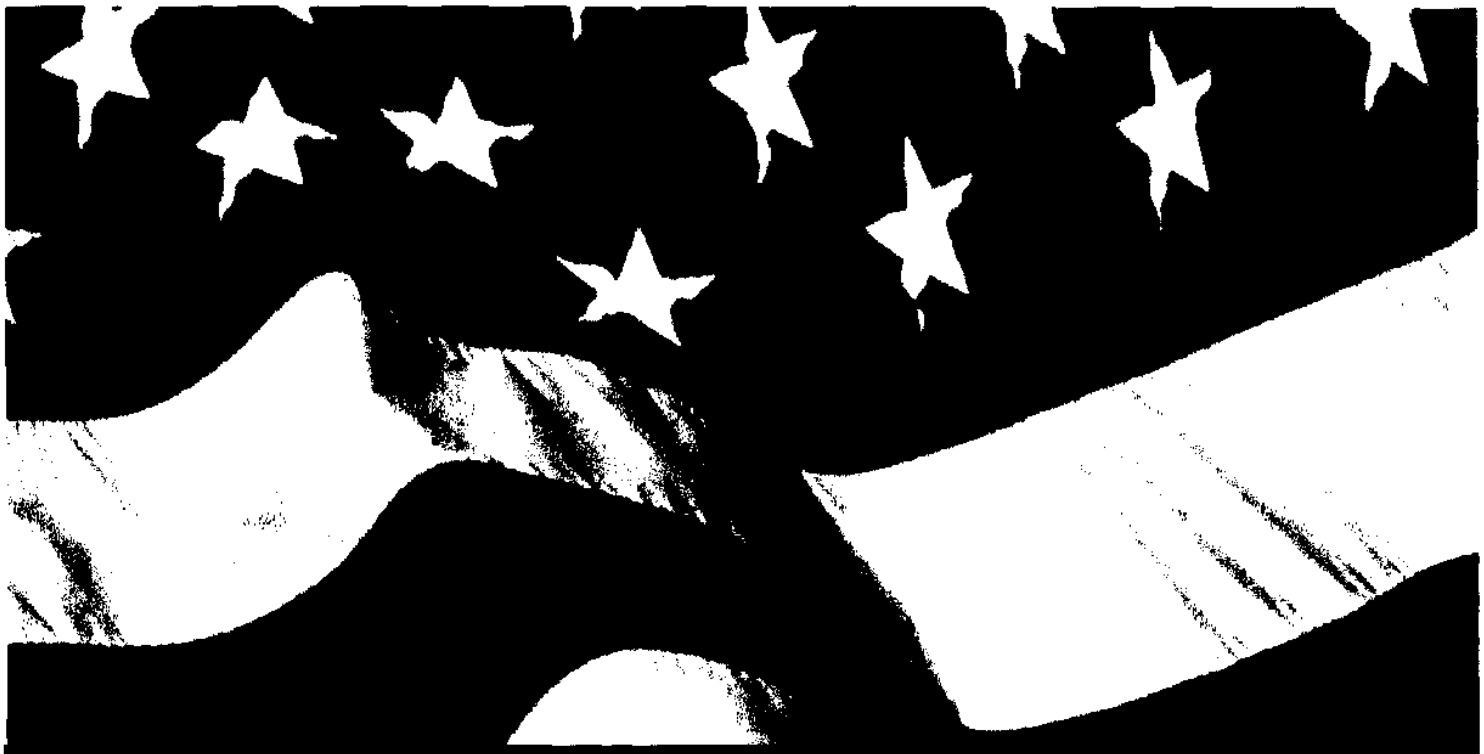
Airport Code	Airport Name	Airport Code	Airport Name
ABQ	Albuquerque International Sunport	LIT	Adams Field
ACY	Atlantic City International	MCI	Kansas City International
ANC	Ted Stevens Anchorage International	MCO	Orlando International
ATL	Hartsfield-Jackson Atlanta International	MDW	Chicago Midway
AUS	Austin-Bergstrom International	MEM	Memphis International
BDL	Bradley International	MHT	Manchester-Boston Regional
BGR	Bangor International	MIA	Miami International
BHM	Birmingham-Shuttlesworth International	MKE	General Mitchell International
BNA	Nashville International	MSP	Minneapolis-St. Paul International
BOI	Boise Air Terminal/Gowen Field	MSY	Louis Armstrong New Orleans International
BOS	Boston Logan International	MWAA (for DCA and IAD)	Metropolitan Washington Airport Authority
BUF	Buffalo Niagara International	OAK	Oakland International
BWI	Baltimore-Washington International Thurgood Marshall	OMA	Eppley Airfield
CLE	Cleveland Hopkins International	ONT	LA/Ontario International
CLT	Charlotte/Douglas International	ORD	Chicago-O'Hare International
CMH	Port Columbus International	ORF	Norfolk International
COS	City of Colorado Springs Municipal	PAPD	Port Authority Police Department
		PBI	Palm Beach International
CVG	Cincinnati/Northern Kentucky International	PDX	Portland International
DAL	Dallas Love Field	PHL	Philadelphia International
DAY	James M. Cox Dayton International	PHX	Phoenix Sky Harbor International
DEN	Denver International	PIT	Pittsburgh International
DFW	Dallas/Fort Worth International	PVD	Theodore Francis Green State
DTW	Detroit Metropolitan Wayne County	RNO	Reno-Tahoe International
ELP	El Paso International	RSW	Southwest Florida International
EWR	Newark Liberty International	SAN	San Diego International
FLL	Ft. Lauderdale-Hollywood International	SAT	San Antonio International
GSN	Saipan International	SDF	Louisville International Standiford Field

Airport Code	Airport Name	Airport Code	Airport Name
GSO	Piedmont Triad International	SEA	Seattle-Tacoma International
GUM	Antonio B. Won Pat International	SFO	San Francisco International
HNL	Honolulu International	SJC	Norman Y. Mineta San Jose International
HOU	Houston Hobby	SJU	Luis Munoz Marin International
IAH	Houston Intercontinental	SLC	Salt Lake City International
IND	Indianapolis International	SMF	Sacramento International
ITO	Hilo International Airport	SNA	John Wayne - Orange County
JAX	Jacksonville International	STL	Lambert-St. Louis International
JFK	John F. Kennedy International	STT	Cyril E. King
LAS	McCarran International	TPA	Tampa International
LAX	Los Angeles International	TUL	Tulsa International
		TUS	Tucson International

Appendix B: Abbreviations/Acronyms

ACAS	Air Cargo Advance Screening
ACSTL	Air Cargo Screening Technology List
AT	Advanced Technology
ATS	Automated Targeting System
C-TPAT	Customs-Trade Partnership Against Terrorism
CBP	U.S. Customs and Border Protection
CRBIT	Cargo Risk-Based Inspection Technique
CCSF	Certified Cargo Screening Facility
CCSP	Certified Cargo Screening Program
CRT	Cargo Reporting Tool
CSAP	Cargo Screening Assessment Program
CTU	Cargo Targeting Unit
CY	Calendar Year
DHS	Department of Homeland Security
EA	Emergency Amendment
EDC	Explosives Detection Canine
EDS	Explosives Detection System
EMD	Electronic Metal Detection
ETD	Explosives Trace Detection
EU	European Union
FY	Fiscal Year
HQ	Headquarters
IAC	Indirect Air Carrier
IACMS	Indirect Air Carrier Management System
ICAO	International Civil Aviation Organization
ICSF	Independent Cargo Screening Facility
IED	Improvised Explosive Device
IFR	Interim Final Rule

IT	Information Technology
K9SP	Explosives Detection Canine Security Program
KSMS	Known Shipper Management System
LEO	Law Enforcement Officer
LPD	Last Point of Departure
NCSP	National Cargo Security Program
NTC-C	National Targeting Center-Cargo
OGS	Office of Global Strategies
OOI	Office of Inspections
OSO	Office of Security Operations
RASCO	Remote Air Sampling Canine Olfaction
REST	Remote Explosives Scent Tracing
SARPS	Standards and Recommended Practices
SD	Security Directive
SEI	Special Emphasis Inspection
SIS	Security Index Score
SSP	Standard Security Program
STA	Security Threat Assessment
TSA	Transportation Security Administration
TSI-C	Transportation Security Inspector – Cargo
TSS	Transportation Security Specialist
TSS-C	Transportation Security Specialist – Cargo
USPIS	U.S. Postal Inspection Service
VAT	Vulnerability Assessment Team
VIPR	Visible Intermodal Prevention and Response



Report on the Implementation of the Law Enforcement Officers Flying Armed (LEOFA) Program

In accordance with Section 1615 of the Implementing Recommendations of the 9/11 Commission Act of 2007, Pub. L. 110-53, codified at 49 USC § 44903

March 2010

Transportation Security Administration

Homeland Security

Message from the Acting Administrator

I am pleased to present the following report regarding the Transportation Security Administration's (TSA's) plans to implement a national program using biometric technology to support armed law enforcement travel on commercial aircraft. The report has been compiled in response to a legislative requirement accompanying the *Implementing Recommendations of the 9/11 Commission Act of 2007*, Pub. L. 110-53, 121 Stat. 266 (2007) (codified as amended at 49 USC § 44903).

Pursuant to statutory requirements, this report is being provided to the Chairmen and Ranking Members of the Senate Committee on Commerce, Science, and Transportation and the House Committee on Homeland Security.

If I may be of further assistance, please do not hesitate to contact me or the TSA Office of Legislative Affairs, at (571) 227-2717.

Sincerely yours,

Gale D. Rossides
Acting Administrator
Transportation Security Administration

Executive Summary

The purpose of this report is to describe TSA's actions to establish a federally-managed national program for armed law enforcement officers (LEOs) traveling by commercial aircraft as set forth in Section 1615 of the *Implementing Recommendations of the 9/11 Commission Act of 2007* (9/11 Act).

The implementation of the Law Enforcement Officer Flying Armed (LEOFA) program is a significant undertaking requiring extensive consultation with thousands of Federal, State, local, and tribal law enforcement agencies which issue credentials to an even larger population of law enforcement officers. The national population exceeds 800,000 sworn law enforcement officers representing over 18,000 different law enforcement agencies at the Federal, State, tribal, territorial, and local level.

To date, TSA has made progress in achieving the security objectives of Section 1615. TSA conducted a series of forums with the law enforcement community in order to better understand their operational requirements. Effective July 15, 2009, TSA implemented an electronic verification process in order to verify that State, local, tribal, and territorial LEOs, who are seeking to carry a weapon on board a commercial aircraft, are doing so for official purposes. For Federal law enforcement officers, effective February 28, 2010, TSA will require that each Federal LEO flying armed be in possession of a Unique Federal Agency Number (UFAN) issued by TSA to that Federal agency. These processes serve as an additional verification step at airport checkpoints for law enforcement officers flying armed.

TSA is now focusing its efforts on documenting requirements necessary to biometrically verify the identity of Federal LEOs using credentials issued by their respective agencies in conjunction with the implementation of Homeland Security Presidential Directive Number 12. These requirements will drive the development of robust cost estimates to support an analysis of alternatives to be completed in 2010.

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I. Legislative Requirement

This document responds to the reporting requirements set forth in the *Implementing Recommendations of the 9/11 Commission Act of 2007*, Pub. L. 110-53, Section 1615(b), 121 Stat. 266 (2007) (codified as amended at 49 U.S.C. § 44903), which states:

> Not later than 180 days after implementing the national registered armed law enforcement program required by section 44903(h)(6) of title 49, United States Code, the Secretary of Homeland Security shall submit to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Homeland Security of the House of Representatives a report. If the Secretary has not implemented the program within 180 days after the date of enactment of this Act, the Secretary shall submit a report to the Committees within 180 days explaining the reasons for the failure to implement the program within the time required by that section and a further report within each successive 90-day period until the program is implemented explaining the reasons for such further delays in implementation until the program is functioning.

II. Background

Pursuant to the requirements of the 9/11 Act, the purpose of the LEOFA program is to establish a process by which biometric technology may be used to verify the identity of a LEO and confirm their authority to carry a weapon on board a commercial aircraft. The successful implementation of this program will enable verification of identity to a higher degree of certainty than is possible using current, non-biometric processes. Leveraging the capabilities of the National Law Enforcement Telecommunications System (NLETS), the LEOFA program will also ensure that a State, local, territorial, or tribal LEO has a specific reason for flying armed that is within the scope of their duties.

TSA continues to take a methodical approach to issues associated with the LEOFA program by separating Federal LEOs from State, local, territorial, and tribal LEOs. A 2000 Report from the Bureau of Justice Statistics indicates there are over 845,000 Federal, State and local LEOs. However, 845,000 LEOs do not fly armed annually. In September 2005, DHS estimated approximately 462,000 LEOFA trips were taken annually. The breakdown between Federal and State or municipal LEOs indicated that approximately 70 percent of these trips were taken by Federal LEOs and only 30 percent by State and local LEOs.

A biometric credential for State, local, territorial, and tribal LEOs may not be feasible given the size of the population and its statistically smaller share of annual LEOFA trips. For example, in the period since the NLETS solution was made mandatory on July 15, 2009 through November 23, 2009, only 7,749 individual non-Federal LEOs were issued unique identifiers to fly armed. At present, resources are not available for the development and implementation of a separate biometric credentialing program for these non-Federal LEOs, and significant program design issues must be resolved, including issuance authority, vetting standards, and program costs. Nevertheless, TSA is proceeding to improve the LEOFA process to reduce the opportunity for an individual to use a counterfeit LEO credential to carry a firearm onboard a commercial aircraft.

In early 2008, TSA hosted a series of forums soliciting input to enhance verification of State, local, territorial, and tribal law enforcement officers' identities while flying armed on commercial flights. The participants consisted of State and local law enforcement agencies, the National Governors' Security Association, Fraternal Order of Police, International Association of Chiefs of Police, the Major County Sheriffs' Association, the Airport Law Enforcement Agencies Network, National Sheriffs' Association, the United States Secret Service, and the Federal Bureau of Investigation. This collaboration led TSA to develop a verification process for State, local, territorial and tribal LEO's flying armed using NLETS. NLETS is an international, computer-based message system linking State, local and Federal law enforcement and justice agencies to share information.

(SSI) Under the new system, State, local, territorial, and tribal LEOs with an operational need to fly armed on a commercial flight must preregister their travel with TSA by sending an NLETS message to TSA in advance of travel. The NLETS message replaces the original letter of authority, signed by the chief or agency head, described in 49 CFR 1544.219. Once the NLETS message is received by TSA, TSA returns to the agency an NLETS response message containing a unique eight-character alphanumeric authorization. TSA checks this authorization, along with a check of other required identifying documents, for verification at the LEO checkpoint on the day of travel. A transition period for the NLETS notification process began on November 7, 2008, during which time TSA continued to honor the authorization letter but encouraged the use of the NLETS authorization code.

(SSI) Beginning July 15, 2009, TSA no longer accepts paper letters of authority for LEOs flying while armed on commercial flights. State, local, territorial, and tribal law enforcement officers with an operational need to fly armed are required to pre-register their travel with TSA by submitting an NLETS message to TSA prior to travel. This new procedure has significantly enhanced the LEOFA verification process and provided TSA with increased situational awareness of the national law enforcement officer flying armed community. The NLETS solution eliminates the opportunity for counterfeit letters of authority and restricts the ability of individuals to fly armed without authorization from their employing agency.

III. Discussion

With the NLETS solution now in place for State, local, tribal, and territorial LEOs, a reliable system for verifying Federal LEO identity is necessary. TSA believes the best way to accomplish this is by leveraging the standard identification requirement contained within Homeland Security Presidential Directive Number 12 (HSPD-12). HSPD-12 requires Federal agencies to issue interoperable biometric Personal Identity Verification (PIV) credentials to all Federal employees. This long-term strategy supports secure, electronic, real-time identity verification and authentication as well as the ability to electronically authenticate privileges.

TSA is currently gathering and documenting requirements for performing biometric verification of Federal LEOs using PIV credentials at the screening checkpoint. As part of this requirements gathering effort, TSA will identify and analyze alternative solutions and develop detailed cost estimates to support selection of a recommended approach for nationwide deployment. TSA expects to conclude this analysis in 2010.

IV. Conclusion/DHS Action Plan

TSA is continuing to make positive progress in implementing the LEOFA program. The advent of NLETS pre-registration requirements for State, local, territorial, and tribal LEOs resulted in enhanced security measures and addressed security vulnerabilities which formed the basis for section 1615 of the 9/11 Act. In addition, TSA has developed an interim identification verification process for Federal LEOs, until biometric verification becomes operational.

(SSI) The Federal interim solution is similar in design and resides in the same database as the system currently used to verify State, local, territorial, and tribal LEOs. Each Federal law enforcement agency will be issued a Unique Federal Agency Number (UFAN). The UFAN, along with a check of other required identifying credentials, will be used for verification at the LEO checkpoint by TSA on the day of travel. The Federal interim solution transition period began on February 1, 2010, and mandatory use of the UFAN will begin on February 28, 2010. While this interim solution does not satisfy the biometric mandate, it will enhance aviation security by serving as an additional layer of verification for Federal LEOs flying armed until biometric identification verification becomes operational.

TSA is working towards a biometric identification verification process for LEOs. The issuance of HSPD-12 compliant PIV credentials for Federal LEOs should further enhance LEOFA operations. TSA is currently documenting requirements in order to leverage the biometric capabilities of these credentials to support identity verification at the screening checkpoint. TSA will use these requirements to generate robust cost estimates and perform an analysis of alternatives in 2010.

V. Appendix

Congressional Report Recipients

The Honorable John D. Rockefeller
Chairman, Senate Committee on Commerce, Science, and Transportation

The Honorable Kay Bailey Hutchison
Ranking Member, Senate Committee on Commerce, Science, and Transportation

The Honorable Bennie G. Thompson
Chairman, House Committee on Homeland Security

The Honorable Peter T. King
Ranking Member, House Committee on Homeland Security

Advanced Imaging Technology

Fiscal Year 2010 Report to Congress

August 30, 2010

Homeland Security

Transportation Security Administration

Message from the Administrator

August 30, 2010

I am pleased to present the following report, "Advanced Imaging Technology," prepared by the Transportation Security Administration. This report responds to questions from the U.S. House of Representatives Committee on Appropriations. It contains detailed information on Advanced Imaging Technology's (AIT's) detection capabilities and limitations, the procurement process, procurement details including cost and deployment strategy, cost containment initiatives and AIT upgrades and initiatives.

Pursuant to congressional requirements, this report is being provided to the following Members of Congress:

The Honorable David E. Price
Chairman, House Appropriations Subcommittee on Homeland Security

The Honorable Harold Rogers
Ranking Member, House Appropriations Subcommittee on Homeland Security

Inquiries related to this report may be directed to me at (571) 227-(b)(6) or to the Department's Deputy Chief Financial Officer, Peggy Sherry, at (b)(6)

Sincerely yours,

John S. Pistole
Administrator
Transportation Security Administration

Executive Summary

Advanced Imaging Technology (AIT) is a passenger screening technology used at airport checkpoints to screen for concealed weapons (metallic and non-metallic), explosives and other prohibited items. AIT gives Transportation Security Officers (TSOs) the opportunity to view anomalies on an individual and to determine whether additional screening procedures are required to clear passengers through the screening process. AIT functions as a primary passenger screening technology and is used instead of a Walk-Through Metal Detector (WTMD). Passengers may opt not to be screened by AIT; however, they are subject to alternative screening in such cases. The Transportation Security Administration (TSA) has implemented substantial privacy protections in the design and deployment of AIT.

In response to a direction from Congress to mitigate the threat of non-metallic items, TSA began evaluating AIT in 2007. TSA assessed multiple types of AIT systems including X-ray backscatter and millimeter wave. Both offer safe and effective screening for weapons and explosives concealed on a person's body. Backscatter X-ray technology creates an image using X-rays that penetrate clothing. Millimeter wave technology uses sensors to collect millimeter wave energy to measure the difference in radiated energy relative to each object against a common background to construct a composite image.

TSA followed the formal testing process set forth in the Passenger Screening Program Test and Evaluation Master Plan, which complies with Department of Homeland Security Acquisition Directive 102. TSA tested different AIT solutions in the laboratory and then in limited field trials in 2007 and 2008. In 2009, TSA began to evaluate using AIT systems in the primary screening position as an alternative to the WTMD. On the basis of these results, TSA solicited AIT solutions from industry and conducted follow-on laboratory and operational field tests. In September 2009, the Department's Acquisition Review Board granted authority for full production of AIT systems, and, shortly thereafter, contracts were awarded to two manufacturers. In the future, TSA will evaluate other manufacturers' AIT products to assess the capabilities of their systems and to refine the AIT concept of operations and procedures.

TSA has compared AIT to other transportation security equipment and manual processes, such as explosives trace detection, enhanced pat-down procedures, WTMD and other imaging technologies, and determined that AIT offers the most effective screening measure against non-metallic threats.

TSA is seeking to enhance the efficiency of using AIT while also reducing privacy concerns regarding this technology by working with manufacturers to develop automated threat detection software, also known as Automated Target Recognition or ATR. ATR uses advanced image analysis software to automatically identify and mark areas of concern on a standardized "stick

figure" or a generic body image for TSOs to check. Using ATR software will reduce the staffing required to operate AIT systems and would eliminate many privacy concerns related to their use. ATR will require extensive software development and testing to ensure effective detection with minimal false alarms. TSA is actively working with the DHS Science and Technology Directorate, the security industry and foreign government partners to develop an ATR capability that ultimately could be installed on U.S.-deployed AIT systems. TSA expects to begin testing initial ATR software submissions from vendors in the fall of 2010.

Advanced Imaging Technologies

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I. Legislative Inquiry

This document responds to requests for information in a July 1, 2010, letter from Chairman David Price and Ranking Member Harold Rogers of the House Appropriations Committee's Subcommittee on Homeland Security. These requests include:

1. An updated, detailed explanation of the detection capabilities and limitation of the Advanced Imaging Technologies (AITs) proposed to be purchased with Fiscal Year (FY) 2011 funding and the efforts the Transportation Security Administration (TSA) is undertaking to improve this technology with specific regard to enhancing security, improving the efficiency of the passenger screening process and mitigating operating and maintenance costs

2. An affirmation that the decision to procure the AITs was a result of a rigorous evaluation of deployable passenger screening technologies and techniques, to include, but not limited to, Explosives Trace Detection (ETD) machines, Enhanced Pat-Down (EPD) procedures, use of canines and available imaging technologies

3. Projected procurement details, costs and schedule for the AITs, to include associated human capital requirements and costs for the deployment, installation and operation of such procurements

4. An explanation of the steps TSA will undertake to constrain operating and maintenance costs of the AITs being procured

5. A detailed explanation of the efforts and resources proposed for the development of more advanced, integrated passenger screening technologies

II. Background

Established in the immediate aftermath of September 11, 2001, TSA is charged with protecting the Nation's transportation systems to ensure the freedom of movement for people and commerce. To that end, TSA's Passenger Screening Program (PSP) identifies, field tests, procures, deploys and sustains equipment that detects threats concealed on people and in their carry-on items as they enter the airport terminal sterile area.

The requirement to develop new technologies for airport screening checkpoints is codified in 49 U.S.C. § 44925(a), which states that:

> The Secretary of Homeland Security shall give a high priority to developing, testing, improving, and deploying, at airport screening checkpoints, equipment that detects non-metallic, chemical, biological, and radiological weapons, and explosives, in all forms, on individuals and in their personal property.

This equipment must detect, under realistic operating conditions, the types of weapons and explosives that terrorists would most likely attempt to smuggle onto an aircraft. Further, 49 U.S.C. § 44925(b) requires the Secretary to develop a strategic plan for deploying explosive detection equipment at airport screening checkpoints, including walk-through explosive detection portals, shoe scanners and backscatter X-ray scanners.

Threats to aviation are dynamic and are evolving to include non-metallic threats such as powder, liquid and plastic explosives that are carried on persons entering airport terminal sterile areas. Additional screening methods to detect these threats, such as a full body pat-down, are effective but time-intensive and cannot be practically applied to all passengers.

Historically, checkpoints have been configured with walk-through metal detectors (WTMDs) to scan passengers and X-ray technology to screen passengers' associated baggage. X-ray technology is able to detect both metallic and non-metallic threats concealed in carry-on luggage; however, WTMDs can only detect metallic threats.

TSA began evaluating available AIT in 2007 to address non-metallic threats. From 2007 to 2008, the Agency conducted laboratory tests, followed by limited field trials. TSA field tested different vendor solutions at multiple airports in the secondary screening position for passengers who set off alarms when going through the WTMD or who were randomly selected for additional screening. In 2009, TSA began evaluating AIT systems in the primary screening position as an alternative to the WTMD. TSA concurrently issued a solicitation to industry for AIT solutions. The Agency conducted follow-on laboratory and operational field tests on the solutions that vendors provided.

In September 2009, after the Department of Homeland Security's (DHS') Acquisition Review Board (ARB) granted authority for full production of AIT, contracts were awarded to two manufacturers. TSA continues to evaluate AIT solutions from other manufacturers to assess the capabilities of their systems and to refine the AIT concept of operations and procedures.

TSA has compared AIT to other available transportation security equipment and manual processes that might be deployed at airport checkpoints, such as ETD, EPD procedures, WTMD, other imaging technologies and the use of canines. On the basis of market research and the review of laboratory studies detailing the use of these screening processes technologies, TSA determined that AIT presented the optimal, most balanced solution for achieving a combination of guiding criteria, including operational effectiveness, efficiency, through-put, customer convenience, privacy and security effectiveness. The studies that measured the effectiveness of AIT include, but are not limited to, Qualification Test and Evaluation (QT&E), Operational Test and Evaluation (OT&E), risk-reduction analysis and alternatives analysis.

III. AIT Detection Capabilities/Limitations

A. Technology Overview/Capabilities

AIT systems are designed to facilitate the detection of metallic and non-metallic weapons, explosives and other contraband material concealed under layers of clothing. It creates images that TSA personnel, through examination, can distinguish from benign objects. TSA is deploying two types of AIT—backscatter X-ray and millimeter wave. Both of these technologies generate a computer image of the scanned individual that is displayed on a remote monitor for analysis by a Transportation Security Officer (TSO) to determine whether anomalies are present. The effectiveness of these technologies depends on how distinctly the threat objects can be made to stand out against the background and how completely the human body can be screened.

The following is an overview of the AITs currently being procured and deployed:

Backscatter: These units use a narrow, low-intensity X-ray beam scanned over the body's surface at high speed, a portion of which is reflected back from the body and other objects are placed or carried on the body. This reflection is converted into a computer image of the subject and displayed on a remote monitor. For comparison purposes, the X-ray dose received from the backscatter system is equivalent to the radiation received in 2 minutes of airplane flight at altitude (0.02 millirem for two scans by backscatter compared to 0.0276 millirem for 2 minutes of flight). Newer versions of this technology require less scanning time, reducing individual X-ray exposure to 0.002 millirem for the entire process.

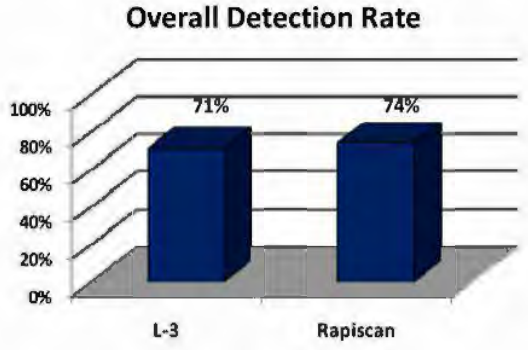
The backscatter AIT meets or exceeds the American National Standards Institute standard for personnel security screening systems using X-rays. This standard provides radiation safety guidelines for the design and operation of these systems and limits the annual effective dose to individuals that are screened. The annual limit is based on recommendations for dose limits for the general public published by the National Council on Radiation Protection and Measurements. The dose limits were set with the understanding that the general public includes individuals who may be more susceptible to radiation-induced health effects, such as pregnant women, children and persons receiving radiation treatment for medical conditions.

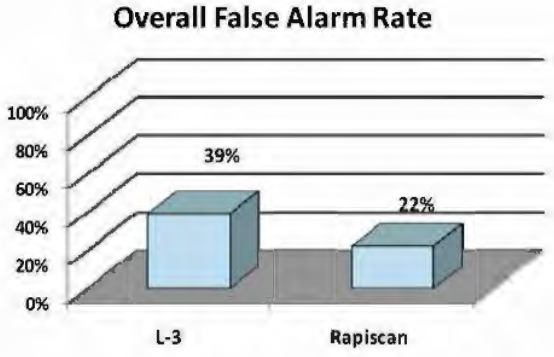
Millimeter wave: These units use non-ionizing radiofrequency energy in the millimeter wave spectrum to generate an image based on the energy reflected from the body. The frequency for millimeter wave technology ranges between 30 and 300 gigahertz. The three-dimensional image of the body is displayed on a remote monitor for analysis by a TSO.

B. Testing

The AIT systems that TSA deployed were subjected, at a minimum, to 1) a QT&E conducted by DHS Science and Technology Directorate's (S&T's) Transportation Security Laboratory, and 2) OT&E conducted by TSA. While QT&E tests equipment in a laboratory setting to validate its operational effectiveness, OT&E tests the product in an airport setting to validate its operational suitability. TSA began piloting AIT in 2007. Throughout the pilot process, TSA gained operational information used to enhance training of the TSOs operating the equipment, improve the passenger screening process and further bolster detection capabilities. The AIT was tested against defined effectiveness and suitability metrics. These metrics include such criteria as laboratory detection, false alarm rate, reliability, maintainability and availability.

The following chart shows TSA's results for detection and false alarm rates for the L-3 millimeter wave unit and the Rapiscan backscatter unit. Although no technology is 100-percent effective at detection, TSA's use of this critical technology routinely detects artfully concealed metallic and non-metallic prohibited items.





C. Operational Results

With broader deployment in U.S. airports, AIT has identified a wide range of artfully concealed non-metallic threats and other items. These images are a sample of items detected through the use of AIT.

Bottles of liquid (found to be urine) – screening anomaly in crotch area:

Marijuana – screening anomaly in buttocks area with glass pipe:

Cocaine – screening anomaly in pants pocket:

Rolls of Methamphetamine – screening anomaly in groin area:

Marijuana – screening anomaly in buttocks area:

Marijuana – screening anomaly in front pocket:

SENSITIVE SECURITY INFORMATION

Non-metallic knife (passenger refused AIT screening and was referred to secondary screening) – knife was found hanging from chest:

D. Limitations

Although new technologies offer great promise in the Department's ongoing efforts to secure our homeland, no technology is a silver bullet against the threat of a terrorist attack. No single technology is 100-percent effective in detecting very small amounts of explosive material, although the likelihood of detection increases as additional technologies are used in a layered and risk-informed system. TSA's multi-layered strategy includes technology components, complemented by Behavior Detection Officers, Bomb Appraisal Officers, Federal Air Marshals, canine teams, well-trained personnel and a ready and engaged traveling public. AIT offers a significant increase in detection capabilities for non-metallic threats. However, space constraints and the need for an image operator are two primary operational limitations associated with the technology.

The current AIT machine requires a significant footprint at the checkpoint. There are associated space limitations, and the machines may not fit into all checkpoints/lanes in their current configurations. The checkpoints at larger airports can accommodate the current dimensions, but smaller checkpoints and airports may be unable to accommodate the width of an AIT machine. This potential limitation mostly applies to Category IV[1] airports, which receive less than 0.5 percent of passenger traffic per year. To mitigate this limitation, vendors are working to develop AIT units that would require less space at the checkpoints.

[1] TSA uses a ranking system for its airports—Category X, I, II, III and IV, with X receiving the highest volume of passenger traffic and IV receiving the lowest.

The current need for an image operator increases overall staffing requirements for TSA and limits AIT cost and operational efficiencies. An automated process could be more efficient through faster interpretation times and improved targeting of anomalies. The deployment of Automated Target Recognition (ATR) software on AIT machines will eliminate the need for an image operator and reduce required staffing and costs associated with the use of AIT.

E. Enhancing Security

ATR

ATR software is composed of algorithms that will automatically identify anomalies on the basis of contour, pattern and shape and recognition software to uncover potential hidden weapons, explosives and other contraband, eliminating the need for an operator to view each passenger's AIT image. These anomalies would be indicated by a form of geographic "bounding box" placed on the area of the possible threat, for example, a box around the left leg below the knee. The information would be displayed on a "stick figure" or generic body image on a screen near the AIT machine that could be viewed by the TSO operating the machine. To resolve the anomaly, a TSO would perform a directed pat-down search of the area that appeared in the box.

TSA is working with the DHS Transportation Security Lab and vendors to develop an ATR capability. ATR requires development of complex software algorithms that will be tested extensively before fielding. TSA expects to receive initial ATR submissions in the fall of 2010 for laboratory testing and anticipates that it will upgrade already deployed AIT machines with ATR software in 2011.

ATR has several key benefits that would represent a major advancement in imaging technology. These benefits include:

- Decreased passenger processing time: Current AIT operating procedures rely on the Image Operator (IO) to visually detect anomalies, while the future algorithm would automate this process.
- Reduced privacy concerns: Stick figures would replace current AIT images.
- Elimination of the need for a separate AIT image operator.
- Reduced footprint and installation costs: No IO station would be required.
- Reduced training costs: Currently, the majority of AIT training is focused on image interpretation, which would no longer be required.

F. Efficiency of the Passenger Screening Process

For any technology to be a viable detection option, it must meet TSA effectiveness and suitability requirements. Suitability includes meeting required throughput rates to minimize the impact on passengers and commercial aviation. TSA also has deployed AIT machines in

configurations that are designed to optimize passenger efficiency. Current configurations include a co-located WTMD to ensure that efficient passenger throughput can be maintained. Future AIT configurations with ATR will allow TSA to remove the co-located WTMD.

TSA recently has observed a trend of passengers carrying on significantly more items now that airlines are charging checked baggage fees. This trend appears to be a significant factor affecting overall processing time for screening passengers and their carry-on baggage. Rather than AIT screening, current data indicate that X-ray screening of additional carry-on property represents the determining factor in overall passenger/carry-on baggage screening duration.

G. Mitigating Operating and Maintenance Costs

TSA has initiated efforts to mitigate ongoing operational and maintenance costs associated with AIT. These efforts include, but are not limited to, the elimination of an image operator station for remote viewing and the reduction of associated staffing (through the development and implementation of ATR). Also, incorporating technology upgrades to integrate AIT with other functionality will enhance throughput/processing speed. TSA anticipates that operational costs will decrease as AIT machines become more efficient. TSA has negotiated 2-year warranties from the original equipment manufacturers with the purchase of AIT units. This reduces maintenance costs and will provide TSA with 2 years of maintenance data that can be used to negotiate pricing when TSA incorporates AIT into its overarching checkpoint equipment maintenance contract. Last year, TSA renegotiated this contract and achieved an 8-percent cost reduction.

IV. AIT Procurement Process

TSA follows DHS Acquisition Directive 102 when acquiring any security technology, including AIT. This directive describes the Department's Acquisition Life Cycle Framework (ALF), Acquisition Review Process and ARB. The ALF is a template for planning and executing acquisitions and includes the following processes:

1. Identify a capability need of the Department, including its Components.
2. Analyze and select the means to provide that capability.
3. Obtain the capability via the appropriate types of acquisitions.
4. Produce, deploy and support the capability through its useful life until disposal.

Threats to aviation are dynamic and are evolving to include non-metallic anomalies carried on passengers, including powders and liquids such as those contained in some explosives. Additional screening methods, such as a full body pat-down, are effective but time-intensive and cannot be practically applied to all passengers. The evolution of non-metallic threats and operational considerations led TSA to identify a need for technology to detect anomalies on passengers' bodies.

TSA developed general criteria as guidance in evaluating potential technologies to meet the identified need:

- Cost: Maximizing operational staffing efficacy and detection capability at an acceptable cost level
- Throughput: Optimizing checkpoint throughput
- Risk Reduction: Ensuring that the technology provides an acceptable level of risk reduction while meeting requirements for probability of detection and false alarm rates.
- Qualitative:
    - Ensuring the health and safety of the passenger screening environment for both passengers and TSA employees
    - Impact on operations
    - Ensuring passenger privacy

As previously noted, TSA began evaluating available AIT in 2007. TSA used a formal testing process as documented in the PSP Test and Evaluation Master Plan (TEMP), which complies

with DHS Acquisition Directive 102. The TEMP establishes a framework that provides an overview of the testing processes followed for all PSP technologies to ensure products meet TSA specifications, are safe and are operationally effective. The test and evaluation strategy is consistent with the program acquisition strategy. All PSP technology projects follow this testing process, which includes, at a minimum, QT&E conducted by the DHS S&T and OT&E conducted by TSA.

TSA tested different AIT solutions in the laboratory and then in limited field trials in 2007 and 2008. In 2009, TSA began to evaluate using AIT systems in the primary screening position as an alternative to the WTMD. On the basis of these results, TSA concurrently solicited industry to provide AIT solutions meeting TSA's requirements. Follow-on laboratory and operational field tests were conducted, and, in September 2009, the Department's ARB granted authority for the deployment of AIT using qualified manufacturers. Subsequently, contracts were awarded to two manufacturers.

The qualification process for manufacturers includes evaluation and testing to validate that the manufacturer's products conform to the requirements set forth in the governing specifications. Qualification and placement on a Qualified Products List (QPL) by a prospective offeror is a prerequisite to being able to propose a solicitation for products subject to that qualification requirement. Unqualified vendors are ineligible for contract awards and, accordingly, are unable to compete for delivery orders issued to satisfy government requirements. Solicitations for items subject to a qualification requirement are not issued until more than one vendor has been placed on the QPL. See Federal Acquisition Regulation § 9.206-3.

TSA conducts ongoing evaluations of AIT products submitted by manufacturers to assess their systems for potential addition to the QPL and to refine the AIT concept of operations and procedures.

V. AIT Procurement Detail

A. AIT Costs

Costs associated with AIT are shown in the following table. These costs include the initial investment in equipment, as well as the elements required to support AIT over the life cycle.

AIT Costs for One Unit	
Cost Category	
Average equipment cost	$175,000
Average installation cost	$55,000
Average annual operations and maintenance	$17,000
Average annual staffing costs (5 FTE per machine)	$412,000*

AIT Funding	ARRA (FY 2009)		ARRA (FY 2010)		FY 2011	
	Units	$ in Millions	Units	$ in Millions	Units	$ in Millions
*Equipment***	150	$25.4	302	$47.9	503	$88.0
Installation		***		$24.9		$27.7
Staffing						$218.9****

* Costs include salary and benefits, as well as other support and training.
** Purchase price includes a 2-year maintenance warranty.
*** Installation funding for AITs purchased in late FY 2009 were obligated in FY 2010.
**** Costs include salary and benefit only.

B. Schedule

The TSA FY 2011 budget indicates that the AIT Full Operating Capability could include up to 1,800 AIT machines; however, that number will be refined as the technology improves and efficiencies in operations are gained. TSA is working with manufacturers to develop ATR capabilities that could substantially improve throughput. Also, other manufacturers are expected to offer smaller footprint and potentially more cost-effective machines.

In FY 2007, TSA purchased 47 AIT millimeter wave machines. TSA deployed 40, and 7 are used for testing. In FY 2009, TSA received American Recovery and Reinvestment Act funding and in FY 2010 began to deploy an additional 452 backscatter and millimeter wave AIT

machines. In the FY 2011 budget, TSA requested to purchase an additional 503 machines. If the FY 2011 budget request is met, at the end of Calendar Year (CY) 2011, TSA will have deployed nearly 1,000 AIT machines.

VI. Cost Containment Initiatives

TSA has a number of initiatives to reduce the ongoing operations, maintenance and staffing costs related to the procurement and deployment of AITs, without compromising the security of the traveling public. We expect the following initiatives to significantly reduce the costs of AIT operation:

A. ATR Upgrade

The upgrade of ATR to AIT units will eliminate the need for an image operator, thereby reducing operational staffing of an AIT by one Full-Time Equivalent per unit. It will also remove the need for the remote IO viewing station, lowering installation and maintenance costs. ATR will increase the effectiveness and throughput of the checkpoint by indicating targeted areas on passengers for resolving anomalies.

B. Optimized CPU Speed within AITs

AIT is anticipated to undergo several upgrades to its processing speed over the procurement timeline from CY 2011 to CY 2014. Vendors have indicated that the possibility exists for processing speeds to increase in the near term through hardware upgrades, allowing the machines to handle greater levels of throughput. The optimized CPU speed may reduce the need for one AIT to be installed for every X-ray used to screen passenger baggage, allowing a single AIT to operate in a two X-ray to one AIT configuration. This has the potential to lower costs as fewer AIT units would be required for checkpoints and less staff required for AIT operation.

C. Maintenance Metrics

AIT vendors, third-party maintenance providers and TSA work together actively to report maintenance metrics to identify and reduce recurring issues. The maintenance metrics are tracked to ensure that issues are identified and addressed in a timely manner and do not disrupt operations in the field.

SENSITIVE SECURITY INFORMATION

VII. Technology Initiatives

AIT offers an upgradable technology platform to encourage vendors to enhance existing AIT capabilities or offer complementary security processes. TSA is determining the feasibility of increasing the functionality of currently fielded units through enhancements or by employing new screening technologies.

A. Additional Algorithms and Increased Processing Speed

As the role of AIT in the passenger screening checkpoint evolves, TSA's primary long-term objective is to develop and deploy a system capable of automatically distinguishing explosives and prohibited items from benign objects concealed on passengers' bodies. Future AIT initiatives will focus on the refinement of the ATR algorithm to increase detection, lower false alarm rate and further reduce processing time. This reduction of processing time may result in one AIT per two X-rays while eliminating the need for the WTMD and related staff.

B. Integrated WTMD Capabilities

WTMD only detects metallic items, while AIT can identify anomalies, including metallic and non-metallic threats, such as small amounts of explosives on the body. In the future, TSA may explore integration of WTMD capabilities into the AIT platform to complement the significant capabilities of AIT with metal detection. Integration could provide a higher level of detection for metallic objects and enhance the capability of current AIT units at a relatively low cost.

C. Integration of Shoe Scanner Device (SSD)

The SSD is a conceptual passenger screening technology to detect explosives and other weapons concealed in passengers' footwear or the lower part of legs and feet. SSD would not require passengers to remove their footwear as they pass through the security checkpoint. This technology would increase efficiency and throughput for the Advanced Technology X-ray because TSOs would no longer be required to analyze images of footwear. This technology would also improve passengers' experience at the checkpoint by further reducing divestiture. SSD can be designed as a complement to AIT because vendors are currently pursuing options to integrate SSD within the AIT platform.

VIII. Appendix A—List of Abbreviations/Acronyms

AIT	Advanced Imaging Technology
ALF	Acquisition Life Cycle Framework
ARB	Acquisition Review Board
ARRA	American Recovery and Reinvestment Act of 2009
ATR	Automated Target Recognition
CY	Calendar Year
DHS	Department of Homeland Security
EPD	Enhanced Pat-Down Procedure
ETD	Explosive Trace Detection
FTE	Full Time Equivalent (Employee)
FY	Fiscal Year
IO	Image Operator
OT&E	Operational Test and Evaluation
PSP	Passenger Screening Program
QPL	Qualified Products List
QT&E	Qualification Test and Evaluation
S&T	Science and Technology (Directorate)
SSD	Shoe Scanner Device
TEMP	Test and Evaluation Master Plan
TSA	Transportation Security Administration
TSO	Transportation Security Officer
WTMD	Walk-Through Metal Detector

TSA's Mass Transit's Implementation of Title XIV of the *Implementing Recommendation of the 9/11 Commission Act of 2007* and the State of Public Transportation

Fiscal Year 2010, Report to Congress
October *2010*

Homeland Security

Transportation Security Administration

Message from the Administrator

October xx, 2010

I am pleased to present the following report, "Implementation of Title XIV of the Implementing Recommendations of the 9/11 Commission Act of 2007 and the State of Public Transportation," prepared by the Transportation Security Administration.

This report is required by Section 1412 of Title XIC (Public Transportation Security) of *the Implementing Recommendations of the 9/11 Commission Act of 2007.* Section 1412 of Title XIV requires the Department of Homeland Security to submit a report not later than March 31st of each year containing the following:

- The National Strategy for Public Transportation Security required under Section 1404;
- The amount of funds appropriated to carry out the provisions of Title XIV that have not been expended or obligated;
- An estimate of the cost to implement the National Strategy for Public Transportation Security, which shall break out the aggregated total cost of needed capital and operation security improvement for fiscal years (FY) 2008-2018; The state of public transportation security in the United States, which is to include numerous data points identified in paragraph (a)(2)(E) of Section 1412; and
- A description of the implementation of the provisions of Title XIV.

Pursuant to congressional requirements, this report is being provided to the following Members of Congress:

The Honorable Frank Lautenberg
Chairman, Senate Appropriations Subcommittee on Homeland Security

The Honorable George V. Voinovich
Ranking Member, Senate Appropriations Subcommittee on Homeland Security

The Honorable David E. Price
Chairman, House Appropriations Subcommittee on Homeland Security

The Honorable Harold Rogers
Ranking Member, House Appropriations Subcommittee on Homeland Security

Inquiries relating to this report may be directed to me at (571) 227-(b)(6) or to the Department's Deputy Chief Financial Officer, Peggy Sherry, at (b)(6)

Respectfully,

John S. Pistole
Administrator

Executive Summary

This report is provided by the Transportation Security Administration (TSA) as required by Section 1412 of Title XIC (Public Transportation Security) of the *Implementing Recommendations of the 9/11 Commission Act of 2007*. The report will address each of the following requirements:

- *The National Strategy for Public Transportation Security required under Section 1404*;
  - The Mass Transit Annex to the Transportation Security Sector Specific Plan (TS-SSP) developed pursuant to Homeland Security Presidential Directive-7, serves as the National Strategy for Public Transportation Security required under Section 1404.

- *The amount of funds appropriated to carry out the provisions of Title XIV that have not been expended or obligated*;
  - At this time, all funds that have been appropriated to carry out the provisions of Title XIV have been expended or obligated.

- *An estimate of the cost to implement the National Strategy for Public Transportation Security, which shall break out the aggregated total cost of needed capital and operational security improvements for fiscal years (FY) 2008-2018*;
  - TSA will provide appropriate cost estimates separately through FY11 budgetary processes for the Department of Homeland Security (DHS) as coordinated by the Office of Management and Budget.

- *The state of public transportation security in the United States, which is to include detailing the status of security assessments, the progress being made around the country in developing prioritized lists of security improvements necessary to make public transportation facilities and passengers more secure, the progress being made by agencies in developing security plans and how those plans differ from the security assessments and a prioritized list of security improvements being compiled by other agencies, as well as a random sample of an equal number of large- and small-scale projects currently underway*; and
  - TSA's efforts in minimizing the likelihood of a terrorist attack occurring or succeeding continue to be guided by five principles:
    - Expanding partnerships for security enhancement
    - Elevating the security baseline
    - Building security force multipliers
    - Leading information assurance
    - Protecting high risk assets and systems.

- *A description of the implementation of the provisions of Title XIV.*
  - Section 1405 – Security Assessments and Plans: Through the American Public Transportation Association (APTA), TSA is working with the industry. TSA

intends to use these standards as part of the basis for its notice of proposed rulemaking (NPRM).

- Section 1406 – Public Transportation Security Assistance: The Transit Security Grant Program (TSGP) meets this requirement.
- Section 1407 – Security Exercises: The Intermodal Security Training and Exercise Program (I-STEP) meets this requirement.
- Section 1408 – Public Transportation Security Training Program: An NPRM is being drafted.
- Section 1409 – Public Transportation Research and Development: DHS' Science and Technology Directorate is providing a separate report addressing this provision.
- Section 1410 – Information Sharing: TSA established a partnership with the Public Transit Information Sharing and Analysis Center (PT-ISAC) and the American Public Transportation Association (APTA) to support public transportation officials.
- Section 1411 – Threat Assessments: An NPRM is being drafted.
- Section 1414 – Security Background Checks of Covered Individuals for Public Transportation: TSA has published guidance on conducting background checks on employees; the guidance is available on TSA's website at http://www.tsa.gov/assets/pdf/guidance_employee_background_checks.pdf
- Section 1415 – Limitations on Fines and Civil Penalties: TSA's Surface Transportation Security Inspection Program procedures are in compliance with this section.

Additional information of the status of each provision is summarized in this report.

Table of Contents

I. Legislative Language and Background

SEC. 1412. REPORTING REQUIREMENTS.

(a) ANNUAL REPORT TO CONGRESS.—

(1) IN GENERAL.—Not later than March 31 of each year, the Secretary shall submit a report, containing the information described in paragraph (2), to the appropriate congressional committees.

(2) CONTENTS.—The report submitted under paragraph (1) shall include—

(A) a description of the implementation of the provisions of this title;

(B) the amount of funds appropriated to carry out the provisions of this title that have not been expended or obligated; 6 USC 1141.Deadline.6 USC 1140.121 STAT. 414 PUBLIC LAW 110–53—AUG. 3, 2007;

(C) the National Strategy for Public Transportation Security required under section 1404;

(D) an estimate of the cost to implement the National Strategy for Public Transportation Security which shall break out the aggregated total cost of needed capital and operational security improvements for fiscal years 2008–2018; and

(E) the state of public transportation security in the United States, which shall include detailing the status of security assessments, the progress being made around the country in developing prioritized lists of security improvements necessary to make public transportation facilities and passengers more secure, the progress being made by agencies in developing security plans and how those plans differ from the security assessments and a prioritized list of security improvements being compiled by other agencies, as well as a random sample of an equal number of large- and small-scale projects currently underway. (3) FORMAT.—The Secretary may submit the report in both classified and redacted formats if the Secretary determines that such action is appropriate or necessary.

(b) ANNUAL REPORT TO GOVERNORS. —

(1) IN GENERAL.—Not later than March 31 of each year, the Secretary shall submit a report to the Governor of each State with a public transportation agency that has received a grant under this Act.

(2) CONTENTS.—the report submitted under paragraph (1) shall specify—(A) the amount of grant funds distributed to each such public transportation agency; and (B) the use of such grant funds.

II. National Strategy for Public Transportation Security

The existing Mass Transit Annex to the Transportation Security Sector Specific Plan (TS-SSP), developed pursuant to Homeland Security Presidential Directive-7, serves as the National Strategy for Public Transportation Security (Section 1404). The TS-SSP is currently being reviewed and updated in order to reflect progress in strategic security priorities and objectives, and to ensure that the specific requirements of Sections 1404 and 1511 (passenger rail) are included. The goal is to complete the updated version in fiscal year (FY) 2011. A brief description of the National Strategy follows:

As the mass transit and passenger rail industry and their Federal, State, and local partners move forward with implementing the plan to secure the mass transit and passenger rail systems, they seek to provide a secure environment for passengers and employees through training, public outreach, proeedures and hardening of physical assets, and expanding visible/covert, random, and unpredictable security measures. This plan for mass transit and passenger rail security sets out to aehieve the objectives and priorities identified in the TS-SSP, the Presidential Executive Order 13416, "Strengthening Surface Transportation Security," as well as other national and regional strategies to mitigate transportation risk. These objectives are achieved by applying risk management principles set forth in the TS-SSP. This risk management framework ensures that risk-reduction and protection measures are implemented in mass transit and passenger rail systems and assets where they offer the most benefit both in response to specific threats and in the general threat environment.

This joint effort takes place through the Transit, Commuter, and Long-Distance Rail Government Coordinating Council (TCLDR-GCC) and the Mass Transit Sector Coordinating Council (SCC). These forums foster effective communications and coordination for the governmental entities and the members of the transit community. The TCLDR-GCC and SCC serve as coordinating bodies to discuss, develop, and refine positions on all matters related to transit security. Further, they streamline the coordination process between government and the transit industry, helping to advance a partnership in developing and implementing security programs. Working through the Critical Infrastructure Partnership Advisory Council, government and industry come together in efforts to reach consensus on transit security initiatives.

Within the GCC/SCC framework, mass transit and passenger rail governmental and industry partners have devised, and are implementing, a plan consistent with the approach set out in the National Infrastructure Protection Plan. This plan aims to enhance security through collaborative efforts nation-wide and in regional areas throughout the nation to employ the full spectrum of security resources in the most effective manner possible. Essential components of the plan include maximizing the power of information, using risk-based principles in conducting assessments of assets and systems, and applying the results to ensure domain awareness and to identify and implement security programs and concrete and specific criteria to measure the effectiveness of these programs. These efforts are advanced in the context of an ever-changing threat environment and encompass proactive measures to reduce vulnerabilities in general and

improve overall preparedness to meet a range of contingencies, including response to specific threat intelligence and security incidents.

Critical systems and assets have been identified via a collaborative effort involving the Transportation Security Administration (TSA) and other components within the Department of Homeland Security (DHS), the Federal Transit Administration (FTA), the Federal Railroad Administration (FRA), the Federal Bureau of Investigation (FBI), mass transit and passenger rail agencies, and State and local governments. FTA, TSA, and other DHS components, in cooperation with State, local, and industry security partners, have conducted a number of vulnerability assessments of the systems and assets.

Rail transit, commuter rail, and major transit systems have developed security plans and emergency preparedness plans in a format that is consistent with the FTA's Public Transportation System Security and Emergency Preparedness Planning Guide (2003).

TSA's Surface Transportation Security Inspection (STSI) Program continues these efforts with the Baseline Assessment and Security Enhancement (BASE) program. The BASE Program reviews transit systems implementation of 17 Security and Emergency Preparedness Action Items (security action items), jointly developed by TSA and FTA in coordination with the SCC. Specifically, Transportation Security Inspectors (TSI) in the field review transit agency security plans and/or related documentation, interview transit agency employees, and observe transit system operations in order to score their performance against over 200 checklist line items included in the BASE. The information gathered from the TSIs is analyzed to inform future policy decisions and security program development. In addition to implementing the BASE program in the field, TSIs support Visible Intermodal Prevention and Response (VIPR) team operations, provide local stakeholder liaison and consultation, and respond to significant security events in order to facilitate information sharing between local transit agencies and the Federal government.

To further support TSA's mass transit security mission, TSA continues to build out its training infrastructure at the Transportation Technology Center in Pueblo, Colorado. In anticipation of the need to train new TSIs on rail-specific safety and security issues, TSA began training the workforce at the facility in 2006. After realizing the value and potential of this site, TSA entered into a Memorandum of Agreement with the Federal Railroad Administration to build out a dedicated portion of the facility, including classroom and office space, to facilitate development and implementation of more advanced surface training opportunities for TSA's field operations staff. As part of this effort, TSA partnered with other Federal agencies and stakeholders to obtain rail cars for practical training purposes. To further deliver on its commitment to improve surface transportation security training, TSA has assigned personnel to develop the surface transportation security related course curriculum and to deliver training material. Current training offered at the Transportation Technology Center includes coursework focused on orienting TSA staff to the rail operating environment and providing safety awareness. Future courses at the facility will include advanced rail operations courses, VIPR team training, and a

highway motor carrier/over-the-road bus course. All courses will include both classroom instruction and on-site practical application and exercises.

In collaboration with the Transit Policing and Security Peer Advisory Group, formed under the auspices of the SCC, TSA works with transit agency managers and security professionals to harness the application of resources and the development of programs to maximize the impact in enhancing security. The Advisory Group brings together the expertise of 14 transit police chiefs and security directors from systems across the nation as a sounding board and liaison group to advance effective security programs. These efforts build on the work already accomplished in transit systems in assessing their security programs, whether through Federal technical assistance programs or contractual arrangements with private entities that conduct risk and vulnerability assessments. Ongoing collaboration with these industry partners has facilitated assessment of transit systems' posture, notably in six Transit Security Fundamentals that are the core underpinnings to an effective transit security program:

1. Protection of high-risk underwater/underground assets and systems
2. Protection of other high-risk assets that have been identified through system-wide risk assessments
3. Use of visible, unpredictable deterrence
4. Targeted counter-terrorism training for key front-line staff
5. Emergency preparedness drills and exercises
6. Public awareness and preparedness campaigns.

The processes for normalizing, analyzing and prioritizing the results of security assessments and employing risk-based initiatives and protective programs to mitigate the identified risks are dynamic. Regular reviews and integration of information on the threat environment ensure these efforts remain properly focused and produce tools that may be employed effectively in the diverse public transportation environment. Such reviews also include the regular and on-going review of the effectiveness of Federal resources, programs, and services. The goal of this plan, and the collaborative efforts and programs it addresses, is to ensure the most effective means to achieve more secure and better protected mass transit and passenger rail systems.

III. Appropriated Funds Not Expended or Obligated

All funds that have been appropriated to carry out the provisions of Title XIV have been expended or obligated.

IV. Estimated Cost Of Implementing the National Strategy

TSA will provide appropriate cost estimates separately through the FY 2011 budgetary processes for DHS, as coordinated by the Office of Management and Budget.

V. State of Public Transportation Security

TSA's efforts to assist public transit agencies and passenger rail carriers to deter terrorism and minimize the effects of terrorist attacks continue to be guided by five principles:

- Expanding partnerships for security enhancement
- Elevating the security baseline
- Building security force multipliers
- Leading information assurance
- Protecting high risk assets and systems.

1. TSA is expanding partnerships for security enhancement through regional coordination and liaisons, notably engagement with Federal and mass transit and passenger rail security partners through the GCC/SCC framework, the Transit Policing and Security Peer Advisory Group (PAG) and multi-agency coordination forums in regional areas throughout the country. A key initiative in this effort is the joint classified threat and analysis briefings provided to mass transit and passenger rail security officials and their Federal partners by intelligence professionals in DHS, TSA, and the FBI. TSA also helps facilitate Connecting Communities Public Transportation Emergency Preparedness Workshops to continue a successful TSA/FTA partnership project. The Federal Railroad Administration participates in Department of Transportation (DOT) efforts promoting public transportation security with respect to intercity passengers and commuter railroads, contributing in particular its knowledge of railroad operations, infrastructure, and organizational structure. TSA also maintains extensive engagement with foreign counterparts on transit security matters with the aim of sharing and gleaning effective practices for potential integration in the domestic strategic approach.

2. Elevating the security baseline through the BASE program and the analysis and application of results to drive development of security programs and resource allocations that most effectively produce security enhancements. TSA's (Surface) Transportation Security Inspectors conduct the assessments in partnership with the mass transit and passenger rail agencies' security chiefs and directors. The results of the security assessments aid in the development of risk mitigation and security enhancement programs, resource allocations, and priorities for transit security grants. In addition, during the assessments the inspectors cite the most effective security programs, measures, and activities developed by the mass transit and passenger rail agencies. This effort enabled a compilation of Smart Security Practices.

3. TSA is building security force multipliers through security training of employees and law enforcement, terrorism prevention and response exercises and drills, and public awareness campaigns. TSA developed and published the Mass Transit Security Training Program to assist agencies in improving security training of their employees. To enhance the coordination and deterrent effect, TSA and the representatives of the Transit Policing

and Security PAG worked cooperatively to improve the preparation, planning, and execution of the Visible Intermodal Prevention and Response (VIPR) program, producing guidelines which were distributed throughout TSA. This effort resulted in an increase of VIPR deployments in mass transit and passenger rail systems being conducted more effectively. To further support the VIPR mission, TSA was provided funding in FY08 and FY10 through a VIPR appropriation to hire 75 and 79 new Surface TSIs, respectively. As a result, TSA dedicated TSIs full-time to 25 VIPR teams at critical locations throughout the country, thus providing local stakeholders with more direct access to TSA resources. TSA has also developed the Intermodal Security Training and Exercise Program (I-STEP) which is expanding throughout the country. The I-STEP incorporates all of the transportation entities of a particular city or area along with their first responders, fire and Emergency Medical Services, and local law enforcement to facilitate planning, preparation, and final execution of a multi-jurisdictional, cross-functional, anti-terrorism exercise program.

4. Leading information assurance is an area that TSA has advanced by accomplishing significant outreach through multiple means such as the Homeland Security Information Network (HSIN), joint DHS/TSA/FBI threat and analysis briefings on a quarterly basis, deployment of secure telephone equipment to Amtrak and the top 20 mass transit and passenger rail agencies to enable immediate contact on specific terrorist threats, and Security Awareness Messages periodically disseminated to mass transit and passenger rail security and management officials.

5. TSA has been protecting high risk assets and systems by participating in a tunnel working group formed by DHS and DOT, bringing experts together to implement protective measures to prevent attacks, researching and testing new technology for screening, enhancing blast mitigation and emergency response capabilities, and working to develop testing and modeling programs to mitigate the overall risk to these assets. The National Explosives Detection Canine Team Program has continued to augment the explosives detection capability of the critical transit agencies by providing partial funding, training, certification, and management assistance.

VI. Descriptions of the Implementation of the Provisions of Title XIV

The following provisions are listed in the 9/11 Act and pertain to the mass transit and passenger rail industries.

Implementation of Section 1405-Security Assessments and Plans. TSA has made significant progress toward ensuring that high risk agencies develop comprehensive security plans and has information to help them establish security programs, assessments, and plans.

Concerning the mandated rulemaking to require that high risk agencies maintain and implement security plans, TSA is conducting outreach to the industry and is developing a security plan regulation for public transportation agencies. This approach was briefed to the GCC in May 2008, the SCC in June 2008, and to the PAG during the monthly teleconferences. Consultations with the public transportation community will continue to occur through these forums, with further outreach among mass transit and passenger rail security officials, employee labor organizations, and first responder associations. TSA anticipates publishing an NPRM in late 2011.

Two of the BASE Security Action Items specifically address whether an agency has a security plan and a vulnerability assessment. The largest mass transit and passenger rail agencies (ridership greater than 60,000 passengers per day) have developed comprehensive security plans and vulnerability assessments that rated high during BASE assessments, but TSA is working with them to improve these scores even further.

Implementation of Section 1406-Public Transportation Security Assistance.

The existing Transit Security Grant Program (TSGP) fulfills the mandate for "a program for making grants to eligible public transportation agencies for security improvements…"

The fiscal year 2010 program guidance, published in December 2009, provided funding opportunities to specific mass transit and passenger rail agencies, emphasizing several different project types that were grouped based on their effectiveness to reduce risk and alignment with departmental priorities. The five project effectiveness groups, with sample project types, are listed below:

- Training, Operational Deterrence, Drills, Public Awareness Activities
  - Developing security plans
  - Training, including security awareness, DHS-approved behavior recognition, counter-surveillance, and immediate actions for security threats/incidents
  - Operational deterrence, including canine, mobile explosives screening, and anti-terrorism teams
  - Crowd assessment
  - Public awareness
- Multi-User High Density Key Infrastructure Protection
  - Anti-terrorism security enhancement measures, such as intrusion detection, visual surveillance with live monitoring, alarms tied to visual surveillance system, recognition software, tunnel ventilation and drainage system protection, flood gates and plugs, portal lighting, and similar hardening actions for:
    - Tunnels
    - High-density elevated operations
    - Multi-user high-density stations
    - Securing of Supervisory Control And Data Acquisition (SCADA) systems

- Single User High Density Key Infrastructure Protection
  - Anti-terrorism security enhancement measures for
    - High-density stations
    - High-density bridges
- Key Asset Operating Protection
  - Physical hardening/security of control centers
  - Secure stored/parked trains, engines, and buses
  - Bus/Rail yards
  - Maintenance facilities
- Other Mitigation Activities
  - Interoperable communications
  - Evacuation plans
  - Anti-terrorism security enhancement measures for low-density stations

The following grant funding was provided to the mass transit and passenger rail industries:

- FY 2010-$253 million; plus another $20 million to Amtrak
- FY 2009-$348 million; plus another $25 million to Amtrak
- FY 2008-$343 million; plus another $25 million to Amtrak
- FY 2007-$255 million including the supplemental funding.

In December 2007, the Secretaries of Homeland Security and Transportation submitted a joint letter to the appropriate Congressional committees regarding their determination, as required by Section 1406 (d), that DHS was "the most effective and efficient way" to distribute the grant funds.
Further details on the TSGP, including summaries of consultations with eligible agencies through meetings, regular teleconferences, and responses to inquiries, may be accessed the DHS public website at http://www.tsa.gov/join/grants/tsgp.shtm. Of note, TSA held two After Action Conferences during July 2010 to afford transit and law enforcement stakeholders the opportunity to provide feedback on the FY10 TSGP process, including recommendations for improving the program. An eastern regional session was held on July 13, 2010, in New York, and a western regional session was held on July 21, 2010, in Los Angeles.

Implementation of Section 1407-Security Exercises. TSA, through the I-STEP, an adaptation of the Port STEP concept to surface modes of transportation, employs a multi-phased, multi-jurisdictional, cross functional and scenario-based approach to evaluate and enhance anti-terrorism and immediate response capabilities. I-STEP enhances the preparedness of our nation's surface transportation sector network with meaningful evaluations of capabilities to prevent, to prepare for, and to respond to terrorist-related incidents.

I-STEP provides security-exercise tools and services to modal operators through TSA general managers. The tools include software for exercise design, evaluation and tracking for a mix of tabletop, advanced tabletop, and functional exercises.

In addition to the highly successful I-STEP in the National Capital Region, four more exercises will have been completed by the end of Calendar Year 2010.

Implementation of Section 1408-Public Transportation Security Training Program. TSA is developing regulations for a public transportation security training program to prepare public transportation employees, including frontline employees, for potential security threats and conditions. TSA has consulted with a broad range of stakeholders as required by Section 1408(b) and anticipates publishing an NPRM in 2011.

Implementation of Section 1409-Public Transportation Research and Development. DHS' Science and Technology Directorate is providing a separate report addressing this provision, which requires DHS to carry out a research and development program in consultation with TSA and FTA for the purpose of improving the security of public transportation systems.

Implementation of Section 1410-Information Sharing. TSA recently established a partnership with the Public Transit Information Sharing and Analysis Center (PT-ISAC) and the American Public Transportation Association (APTA) to provide access to intelligence and research materials gathered by TSA to support mass transit and passenger rail officials in this area.

In a collaborative effort, officials from the TSA Mass Transit and Passenger Rail Division and TSA Office of Inspections (OI), the Federal Transit Administration, the PT-ISAC, and representatives of the mass transit and passenger rail agencies are developing recommendations on specific actions to enhance the scope, accuracy, timeliness, and efficiency of information sharing. A primary objective of this effort is producing a unified, comprehensive intelligence and security information sharing platform for the mode, with reports and other materials on security technologies as essential components.

Implementation of Section 1411-Threat Assessments. TSA is preparing a proposed Rule to require frontline public transportation employees to undergo a name-based check against the consolidated Federal watch lists and an immigration check, and pay the associated fees.

Implementation of Section 1414-Security Background Checks of Covered Individuals for Public Transportation. TSA has produced guidance on conducting background checks of public transportation employees. This guidance includes a

reference to the Federally-established list of disqualifying crimes applicable to and the appeal and waiver process system established for hazardous material drivers and transportation workers at ports (49 Code of Federal Regulations (CFR) 1572.103 and 49 CFR part 1515 respectively). The guidance further recommends an internal redress process for individuals who are adversely impacted to ensure both fairness and security. This guidance was widely disseminated in November 2007 including at SCC and PAG meetings. It is also published and is available on TSA's website at http://www.tsa.gov/assets/pdf/guidance_employee_background_checks.pdf.

Item number 14 addresses Background Checks as follows:

> **14. Conduct Background Investigations of Employees and Contractors**
>
> a. Conduct background investigations (i.e., criminal history and motor vehicle records) on all new front-line operations and maintenance employees, and employees with access to sensitive security information and security critical facilities and systems.
>
> b. Conduct background investigations on contractors, including vendors, with access to sensitive security information and security critical facilities and systems.
>
> c. Ensure that background investigations are consistent with applicable laws.
>
> d. Document the background investigation process, including criteria for background investigations by employee type (operator, maintenance, safety/security sensitive, contractor, etc.).

Implementation of Section 1415-Limitations on Fines and Civil Penalties.

The standard operating procedures for the Surface Transportation Security Inspection Program are in compliance with this section, which prohibits the Secretary from assessing civil penalties against public transportation agencies for violations of DHS' regulations or orders except as follows:

- When the agency is in violation of a regulation or order, the Secretary shall seek correction through a written notice to that agency to afford that agency the opportunity to correct the violation or propose an alternative acceptable to the Secretary.
- If an agency in violation neither corrects the violation, nor proposes an alternative means of compliance within a reasonable time period specified in writing by the Secretary, the Secretary may take authorized action.

Screening Partnership Program Implementation of GAO Recommendations and Compliance with FAA Modernization and Reform Act of 2012

FY 2014 Report to Congress

May 02, 2014

Homeland Security

Transportation Security Administration

Message from the Administrator

May 02, 2014

I am pleased to present the following report, "*Screening Partnership Program (SPP) Implementation of Government Accountability Office (GAO) Recommendations and Compliance with Federal Aviation Administration (FAA) Modernization and Reform Act of 2012,*" prepared by the Transportation Security Administration (TSA).

TSA is submitting this report pursuant to the Explanatory Statement accompanying the FY *2014 Department of Homeland Security* (DHS) *Appropriations Act* (P.L 113-76) and House Report 113-91. The report discusses TSA's implementation of GAO recommendations to compare cost and performance of SPP and non-SPP airports, as well as TSA's compliance with the FAA Modernization and Reform Act of 2012.

As required, we are submitting this report to the following Members of Congress:

The Honorable John R. Carter
Chairman, House Appropriations Subcommittee on Homeland Security

The Honorable David E. Price
Ranking Member, House Appropriations Subcommittee on Homeland Security

The Honorable Mary L. Landrieu
Chairman, Senate Appropriations Subcommittee on Homeland Security

The Honorable Daniel Coats
Ranking Member, Senate Appropriations Subcommittee on Homeland Security

Inquiries relating to this report may be directed to me at (571) 227-(b)(6) or to the Department's Acting Chief Financial Officer, Chip Fulghum, at (b)(6)

Sincerely,

John S. Pistole
Administrator

Screening Partnership Program

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I. Legislative Language

This report is submitted pursuant to the Explanatory Statement and House Report 113-91 accompanying the FY *2014 DHS Appropriations Act* (P.L. 113-76).

The Explanatory Statement states:

> "TSA is directed to provide a report to the Committees not later than 90 days after the date of enactment of this Act on how it is implementing GAO recommendations to compare cost and performance of SPP airports and non-SPP airports."

House Report 113-91 states:

> "In addition, the Committee directs TSA to fully implement all previous GAO recommendations deemed necessary to accurately compare cost and performance of SPP airports and non-SPP airports and to provide a report to the Committee, not later than 90 days after the date of enactment of this Act, with the results of these implemented changes, which the Committee expects to be sufficiently transparent and reflective of a cost and performance comparison using proper and generally accepted accounting principles.
>
> The Committee directs TSA to report not later than 90 days after the date of enactment of this Act on how it is complying with the FAA Reauthorization Act *[sic]* (Public Law 112-95) provisions and to provide the Committees quarterly reports on its execution of the SPP program and processing of applications for participation, including the status of applications by date of application and date of decision."

II. Background

In accordance with the *Aviation and Transportation Security Act* (ATSA; P.L. 107-71), TSA contracts with qualified private companies through the SPP at participating airports to screen passengers and baggage (including some cargo) for explosives, weapons, and other prohibited items through the use of a private, contract screening workforce under federal oversight.

SPP complies with ATSA and 49 U.S.C. §44920, which authorize the TSA Administrator to approve an application, submitted by an operator of an airport, to have the screening of passengers and property at the airport carried out by the screening personnel of a qualified private screening company under a contract entered into with the Administrator. The *FAA Modernization and Reform Act of 2012* (P.L. 112-95) amended 49 U.S.C. § 44920 by providing several standards that TSA must use when determining whether to approve an application, a timeline for approving or denying an application, and specific actions to take if an application is denied. TSA continues to meet the statutory requirements of 49 U.S.C. § 44920 and private contract screeners continue to play an important part in TSA's mission of protecting the Nation's transportation systems.

III. GAO Recommendations

GAO conducted two audits of the SPP that compare cost and performance of SPP airports and non-SPP airports. GAO audit 09-27R: *TSA's Cost and Performance Study of Private-Sector Airport Screening,* was conducted from August 2007 to November 2008, with a final report published on January 9, 2009. GAO audit 13-208: *Screening Partnership Program: TSA Should Issue More Guidance to Airports and Monitor Private versus Federal Screener Performance,* was conducted from November 2011 to November 2012, with a final report published on December 6, 2012.

In GAO audit report 09-27R, the GAO made recommendations with which TSA partially concurred. GAO reviewed TSA's study on cost and performance comparisons and listed 10 items as limitations. Of the seven limitations identified by GAO associated with TSA's cost comparison, three items have been addressed by TSA and four were partially addressed. As a result, GAO's updated review[1] in March 2011 determined that "TSA's revised cost comparison provides a more reasonable basis for comparing the costs of private-sector and TSA screeners." Of the three limitations associated with TSA's performance analysis, GAO determined that one was partially addressed, and two were generally not addressed. The first unaddressed limitation was related to insufficient variables in performance comparisons between SPP and federal airports, and the second pointed to a lack of confidence levels for estimates in screening performance, a requirement of generally accepted statistic practices. These limitations in assessing contractor performance were reiterated in audit report GAO audit13-208, which TSA has worked to address.

In the six years since GAO audit 09-27R was conducted, TSA has made great strides in improving its cost estimating methodology and providing more transparency into how these figures are calculated. TSA uses actual, airport-specific wage and benefit rates for airports that are being reviewed for transition, and applies relevant direct costs and overhead to its estimates. Since 85-90 percent of screening operations costs are related to personnel compensation and benefits, TSA is confident the methodology is accurately capturing the most significant cost factor for federal cost estimates. TSA now publishes the federal cost estimate in the SPP Request For Proposals (RFPs), so all bidders are aware of the evaluative criteria TSA uses to assess the cost efficiency of a contract. On January 10, 2014, TSA held an industry day, which included a presentation and open question and answer discussion regarding the federal cost estimate. On January 14, 2014, TSA leadership, along with the DHS Office of Inspector General (OIG) and GAO, testified before Congress and provided detailed information regarding the federal cost estimate to committee staff. TSA welcomes GAO to review its current methodology and provide critical feedback in order to further enhance the accuracy of the federal cost estimate.

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[1]GAO-11-375R: *Aviation Security: TSA's Revised Cost Comparison Provides a More Reasonable Basis for Comparing the Costs of Private-Sector and TSA Screeners.*

In response to the Explanatory Statement and House Report 113-91 accompanying the FY *2014 DHS Appropriations Act* (P.L. 113-76), TSA is planning for a 2014 independent study of its cost and performance comparison methodology. TSA intends to discuss the study objectives with GAO in advance of initiating the study.

In GAO audit report 13-208, the GAO made two recommendations with which TSA concurred. The recommendations included providing airports with more detailed guidance on how the SPP application process works, and developing a formal mechanism to evaluate private contractor performance.

Recommendation 1 proposed that TSA develop guidance that clearly: (i) states the criteria and process that TSA is using to assess whether participation in the SPP would compromise security, or detrimentally affect the cost efficiency or the effectiveness of the screening of passengers or property at the airport; (ii) states how TSA will obtain and analyze cost information regarding screening cost efficiency and effectiveness and the implications of not responding to the related application questions; and, (iii) provides specific examples of additional information airports should consider providing to TSA to help assess an airport's suitability for SPP.

TSA and GAO believe that the implemented changes have addressed the recommendations. The criteria provided to assess screening effectiveness as requested in parts (i) and (iii) of Recommendation 1 is left intentionally and appropriately broad. This provides interested parties discretion in how they craft proposals to meet the requirement of the Request for Proposals (RFPs), and an avenue to suggest alternative approaches or solutions to meet security requirements. To aid offerors in building effective proposals, TSA includes in the RFP the security requirements and the Federal Cost Estimate (Cost Efficiency) of the airport. The airport's participation in SPP is not considered approved until a qualified vendor is selected.

TSA has no preconceived notion and does not want to restrict the information an airport may want to provide in order to justify their application. TSA provides general categories of information on its SPP application website and continuously reviews its guidance to ensure airports feel comfortable with the process and understand how all the information they provide will be used.

In response to part (ii) of the recommendation, TSA posted an overview of the application process to the TSA website. Specifically, the overview describes the process, provides as many details as possible concerning the data that is used to approve or deny an application, and discusses TSA's cost-estimating methodology and TSA's definition of cost efficiency. In addition to this guidance update, TSA revised the SPP application to comply with appropriate federal records management directives and posted it at www.tsa.gov/stakeholders/program-application.

Recommendation 2 proposed that TSA develop a mechanism to regularly monitor private versus federal screener performance. Beginning in the second quarter of FY 2013, TSA began producing reports that evaluate compliance with all provisions of the statute. These reports include an evaluation of SPP airport performance against the performance of TSA airports as a whole, as well as performance against other airports in the same category. To evaluate performance criteria that are reasonably within the control of the contractor, TSA uses measures

that are meaningful, provide value to TSA, are uniformly applied to all airports, and, to the extent practicable, are not influenced by factors outside a contractor's control, such as airport layout. The measures used to assess performance include pass rates on recertification testing, explosive detection drills, and SOP compliance assessments.

The recommendations provided by GAO in report 13-208 have been closed as "implemented." This is an important step in building consistency in performance comparisons between SPP and non-SPP airports. TSA continues to take strides to improve performance comparison methodology.

IV. FAA Modernization & Reform Act of 2012

The SPP program office is responsible for monitoring TSA compliance with provisions of P.L. 112-95 § 830, and the program has complied with the provisions since enactment of the Act. Specifically, the program continues to review compliance with the following provisions of the statute:

- *"Not later than 120 days after the date of receipt of an application submitted by an airport operator under subsection (a), the [TSA Administrator] shall approve or deny the application."*

TSA received one SPP application in FY 2013, from Sarasota-Bradenton International Airport (SRQ), on February 5, 2013. TSA vetted and approved the application on May 16, 2013, well within the 120-day requirement.

- *"The [TSA Administrator] shall approve an application submitted by an airport operator under subsection (a) if the [TSA Administrator] determines that the approval would not compromise security or detrimentally affect the cost-efficiency or the effectiveness of the screening of passengers or property at the airport."*

A team was convened to assess SRQ's application to determine compliance with the above statute. It included participants from TSA's Office of Security Operations, Office of Chief Counsel, Office of Finance and Administration, Office of Human Capital, and Office of Acquisitions. The team did not identify any issues that indicated a degradation of security or screening effectiveness by transitioning SRQ to private screening services. The team noted, however, that while TSA's experience is that privatized screening has not compromised security or detrimentally affected the effectiveness of screening passengers and property at the SPP airports, it is possible that a proposal for private screening services could offer an approach to achieve efficiency that could negatively impact security effectiveness. Therefore, final action on an airport's acceptance into the SPP must be conditional pending an evaluation of proposals received.

- *"If the [TSA Administrator] denies an application... [he] shall provide to the airport operator, not later than 60 days following the date of the denial, a written report that sets forth (i) the findings that served as the basis for the denial, (ii) the results of any cost or security analysis conducted in considering the application, and (iii) recommendations on how the airport operator can address the reasons for the denial."*
- *"The [TSA Administrator] shall submit to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Homeland Security of the House of Representatives a copy of any [application denial] report provided to an airport operator under subparagraph (A)."*

TSA did not deny any aircraft operator applications to participate in SPP in FY 2013. Therefore, none of the aforementioned actions were necessary.

V. Conclusion

Private contract screeners have played an important role in TSA's mission of protecting the Nation's transportation systems since TSA began screening passengers and baggage in 2002. That work continues today as private contract screeners actively screen more than 28 million passengers and their baggage annually. TSA is also currently adapting its processes to meet the statutory requirements of P.L. 113-76, as it continues to enhance and improve this program.

In response to additional Congressional direction in FY 2014, TSA is currently pursuing an independent study of the SPP as related to cost and performance comparisons. TSA intends to include, as part of this study, a full assessment of the existing methodology, proposed changes, and potential impacts of implementing those changes. The Agency expects to develop additional program improvements as a result of this study. TSA will wait for GAO to brief the Congressional Appropriations Committees on the sufficiency of the study, per the report guidance accompanying the *FY 2014 DHS Appropriations Act* (P.L. 113-76), prior to using its results to implement any substantive program changes.