Department of Homeland Security

Office of Inspector General

Research and Development Efforts to Secure Rail Transit Systems

OIG-13-111

August 2013

OFFICE OF INSPECTOR GENERAL
Department of Homeland Security

Washington, DC 20528 / www.oig.dhs.gov

August 27, 2013

MEMORANDUM FOR: The Honorable John Pistole
Administrator
Transportation Security Administration

The Honorable Dr. Tara O'Toole
Under Secretary
Science and Technology Directorate

FROM: Charles K. Edwards
Deputy Inspector General

SUBJECT: *Research and Development Efforts to Secure Rail Transit Systems*

Attached for your action is our final report, *Research and Development Efforts to Secure Rail Transit Systems*. We incorporated the formal comments from the Transportation Security Administration in the final report.

The report contains one recommendation aimed at improving TSA's Gap Analysis Process. Your office concurred with the recommendation. As prescribed by the *Department of Homeland Security Directive 077-1, Follow-Up and Resolutions for the Office of Inspector General Report Recommendations*, within 90 days of the date of this memorandum, please provide our office with a written response that includes your (1) agreement or disagreement, (2) corrective action plan, and (3) target completion date for our recommendation. Also, please include responsible parties and any other supporting documentation necessary to inform us about the current status of the recommendation.

Please email a signed PDF copy of all responses and closeout requests to OIGInspectionsFollowup@oig.dhs.gov.

Consistent with our responsibility under the *Inspector General Act*, we are providing copies of our report to appropriate congressional committees with oversight and appropriation responsibility over the Department of Homeland Security. We will post the report on our website for public dissemination.

Please call me with any questions, or your staff may contact Deborah Outten-Mills, Acting Assistant Inspector General for Inspections, at (202) 254-4015.

Attachment

Table of Contents

Appendixes

Abbreviations

APTA	American Public Transportation Association
CIPAC	Critical Infrastructure Partnership Advisory Council
COTS	Commercial Off-the-Shelf
DHS	Department of Homeland Security
DOT	Department of Transportation
DT&E	Developmental Test and Evaluation
EXD	Explosives Division
GCC	Government Coordinating Council
HSARPA	Homeland Security Advanced Research Projects Agency
IED	improvised explosive device
IPT	Integrated Product Team
NIPP	National Infrastructure Protection Plan
NPPD	National Protection and Programs Directorate
OIG	Office of Inspector General

OSC	Office of Security Capabilities
OSPIE	Office of Security Policy and Industry Engagement
OT&E	Operational Test and Evaluation
PAG	Transit Policing and Security Peer Advisory Group
RDWG	Surface Transportation Research and Development Working Group
R&D	Research and Development
S&T	Science and Technology
SCC	Sector Coordinating Council
TCLDR	Transit, Commuter and Long-Distance Rail
TRL	Technology Readiness Level
TSA	Transportation Security Administration
TSGP	Transportation Security Grant Program
TS-SSP	Transportation Systems–Sector Specific Plan
USCG	United States Coast Guard

Executive Summary

The National Infrastructure Protection Plan stipulates that the Transportation Security Administration (TSA) coordinate preparedness activities among transportation sector partners to prevent, protect against, respond to, and recover from all hazards that could affect U.S. transportation systems.

TSA, with the collaboration and coordination of other Federal agencies and the surface transportation industry, created the Surface Transportation Research and Development Working Group. The group's mission is to gather and consolidate sector-directed research and development efforts from all transportation security partners. It identifies security vulnerabilities—capability gaps—and refers them to DHS Science & Technology Directorate (S&T) for further review and possible initiation of research and development projects.

Based on the gap analysis, S&T developed the Surface Transportation Program. The program provides the necessary framework to pursue TSA technologies to detect leave-behind improvised explosive device threats and to secure mass transit stations through layered detection technology.

The purpose of our review was to evaluate (1) how critical gaps in detecting improvised explosive device threats against mass transit systems are identified and prioritized for research and development, and (2) how S&T coordinates research and development efforts with TSA to address those gaps. The scope of this review was limited to the transportation sector's mass transit mode, specifically subway systems.

S&T and TSA replaced previously established working groups and processes with smaller, more effective groups, such as the Surface Transportation Project Integrated Product Team, chartered in 2010, and the Research and Development Working Group, reorganized in 2011. Although these groups and their associated processes are relatively new, they are successful in identifying and consolidating old and new capability gaps. In addition, S&T and TSA are effectively collaborating in research and development efforts to address mass transit security needs. Although the new gap analysis process is based on the Transportation Sector-Specific Security Plan, TSA does not have written guidelines or directives to formalize the process.

We are recommending that TSA formally document the newly implemented process for identifying capability gaps to ensure consistency in future gap reviews.

Background

S&T is the primary component within the Department of Homeland Security (DHS) for research and development (R&D). S&T provides Federal, State, and local officials with the technology and capabilities to protect the homeland. S&T manages science and technology research from development through transition to Department components. TSA relies on S&T to develop technology that protects the Nation's transportation systems to ensure freedom of movement for people and commerce.

The DHS National Infrastructure Protection Plan (NIPP) was established in 2006, in accordance with Homeland Security Presidential Directive 7. The NIPP provides a risk-based framework for the development of strategic plans that enhance the safety of 18 critical infrastructures.[1] It also describes the process for TSA and S&T to identify and prioritize critical transportation security gaps for R&D efforts.

The Secretary of DHS designated TSA and the United States Coast Guard as the Sector-Specific Agencies for the Transportation Systems Sector, one of the 18 critical infrastructures.[2] TSA and the Coast Guard, in collaboration with the Department of Transportation (DOT), coordinate the preparedness activities among the sector's partners to prevent, protect against, respond to, and recover from all hazards that could have a debilitating effect on homeland security, public health and safety, and economic well-being.

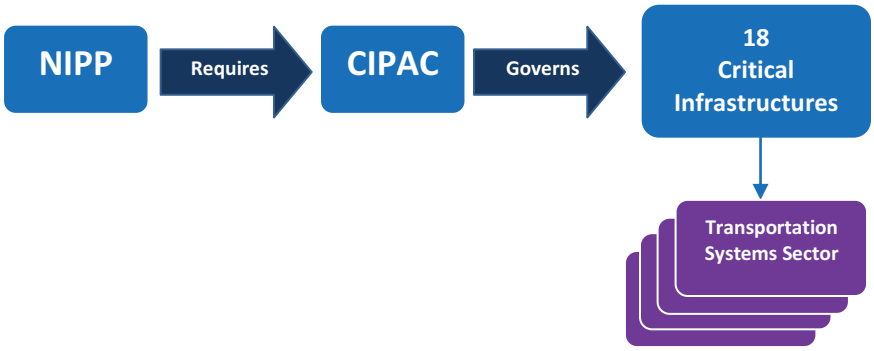
The Transportation Systems Sector includes all modes of transportation (aviation, maritime, mass transit, highway, freight rail, and pipeline). TSA developed the Transportation Systems-Sector Specific Plan (TS-SSP) in 2007 to document the process for carrying out the national strategic priorities outlined in the NIPP. The TS-SSP describes strategies that protect critical infrastructure and key resources. It describes the security framework that enables sector stakeholders to make effective and risk-based security and resource allocation decisions based on the unique characteristics and conditions of their sector.

The NIPP also requires the Transportation Systems Sector to facilitate effective coordination between government and the private sector. Accordingly, TSA established a Government Coordinating Council (GCC) and a Sector Coordinating Council (SCC). DHS also chartered the Critical Infrastructure Partnership Advisory Council (CIPAC), which

[1] GAO-09-678, June 2009, *Transportation Security*, p. 12.
[2] Sector-specific agency is the Federal department or agency responsible for infrastructure protection activities in a designated critical infrastructure sector or key resources category (GAO-09-678, June 2009, *Transportation Security,* p. 12).

established a process for consensus-based engagement between the GCC and SCC.[3] With CIPAC guidance, these councils foster development and communication of coordinated policies and positions on matters in transportation security and operational efficiency. Members of the respective councils collaborate to develop and implement security strategies, plans, and programs outlined in the TS-SSP. Figure 1 shows the NIPP framework as it relates to the Transportation Systems Sector.

Figure 1. NIPP Framework



Source: OIG analysis

Mass Transit Mode

To address the unique aspects of each mode of transportation, TSA developed supporting modal implementation plans. The Mass Transit Modal Annex details TSA's overall goals and objectives related to mass transit security. We focused primarily on the Transportation Systems Sector's mass transit mode.

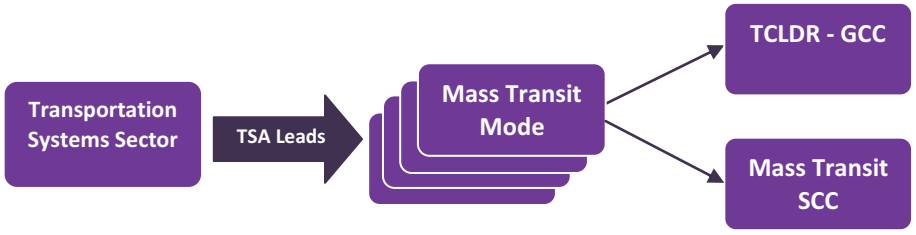
TSA has also established GCCs and SCCs for each mode, which resemble the Transportation Systems Sector GCC and SCC. As required by the NIPP and the TS-SSP, the GCCs and SCCs communicate regarding infrastructure risk assessments, planning, prioritization, programming, and risk reduction measurement. For the mass transit mode, TSA, in coordination with its Federal partners, has established the Transit, Commuter and Long-Distance Rail (TCLDR) GCC to bring together Federal entities with responsibilities that affect mass transit security. Representatives from DOT, DHS, the Federal Bureau of Investigation, and the Department of Defense participate in the TCLDR-GCC.

[3] CIPAC was chartered in June 2006 by Former DHS Secretary Michael Chertoff, as a requirement of Homeland Security Presidential Directive 7 and as identified in the National Infrastructure Protection Plan.

The Mass Transit SCC, chaired by the Chief Executive Officer of Metrolink, and supported by the Director of the American Public Transportation Association (APTA), is composed of private sector representatives from transit agencies and business organizations providing support services to the public transportation industry. APTA is a nonprofit organization with members from public organizations engaged in bus, mass transit, light rail, commuter rail, subways, waterborne passenger services, and high-speed rail.

Figure 2 shows mass transit's structure within the Transportation Systems Sector.

Figure 2. Transportation Systems Sector's Mass Transit Structure



Source: OIG analysis

The Transit Policing and Security Peer Advisory Group (PAG), which was formed under the auspices of the SCC, brings together the expertise of 21 transit police chiefs and security directors from mass transit systems across the United States. The PAG acts as an effective communication instrument and liaison group with the TSA and other federal governmental agencies.

The TCLDR-GCC, Mass Transit SCC and the PAG serve as coordinating bodies to discuss, develop, and refine positions in all matters on transit security. They implement both the TS-SSP and the plan outlined in the Mass Transit Modal Annex. Working through the CIPAC, government and industry come together in efforts to reach consensus on transit security initiatives to include research and development efforts.

Mass Transit Presents a Different Set of Requirements and Challenges

Since the attack on the United States on September 11, 2001, DHS has concentrated its R&D efforts on technology for airline passenger screening, especially the detection of explosive devices. Although mass transit security commands greater importance

following the attacks on subway systems overseas, mass transit presents unique challenges for DHS not previously encountered with aviation security efforts. These challenges have contributed to the lack of effective technology to detect improvised explosive devices (IEDs) in rail systems. Specifically:

- Mass transit systems are attractive targets for terrorists because of vulnerabilities, such as open space architecture, restrictions on access, a lack of universal security screening, and multiple stops and interchanges. In addition, unlike the largely standardized passenger aviation system, there is no common blueprint for transit system stations, track layout, train designs, or fare collection systems.

- Although TSA has a stake in the development of technology to secure mass transit, the individual transit agencies are both the customers and the end-users for any new technology. Transit agencies' operating budgets may or may not enable them to purchase and deploy new technology. The Transportation Security Grant Program (TSGP) provides grants for safety and security measures to augment transit agencies' limited funds. However, according to DHS officials, congressional funding for the grants program has been drastically reduced from more than $400 million in 2008 to $87.5 million in 2012. With the high demand for grants and shrinking resources, fewer applications are funded. Transit agencies look for affordability and a high return on investment before spending grant money on new technology.

- Most explosive detection devices currently available were developed in response to aviation-related threats and requirements. The products have almost no application to mass transit.

Funding Challenges Exist for the Mass Transit Program

S&T and the Explosives Division (EXD) have experienced substantial budget cuts in the past 2 years. EXD's budget was reduced by 28 percent in fiscal year 2012. Despite a $39.4 million increase in the Fiscal Year 2013 President's Budget request (53 percent over fiscal year 2012), funding levels for this year are uncertain, and further cuts may be necessary. To assist with the budget process and to establish funding priorities, S&T senior managers conduct periodic project reviews. An S&T official indicated that the review process allows management to balance its portfolio with a primary focus on available funding, probability of success, and importance to the customer component. The official also explained that it is challenging to develop technology without the assurance that developed products would be commercially successful. S&T believes that without some commitment by a mass transit end-user to co-invest in the

technology, it would be difficult to justify long-term allocation of time and resources. One way that an S&T project "succeeds" is when S&T develops and refines a useful new technology to the point that a private sector company can profitably manufacture a product using the new technology, and DHS elements or outside stakeholders will choose to buy that new product.

Results of Review

Mass transit, which includes intercity buses, trolleybuses, subway (heavy rail) and commuter rail, demand response services, automated guideway transit, cable cars, and monorails, is an integral part of the U.S. transportation system. As the Nation's second largest mode of transportation (next to the automobile), there were 10.2 billion mass transit passenger trips in 2009 for a total of 55.2 billion passenger miles.[4] [5] According to the 2012 Annual Progress Report for the National Strategy for Transportation Systems, the transportation sector's greatest risk is an IED attack on the mass transit mode because of its open access and the probability of mass casualties.[6] Bombing attacks in Madrid (2004), London (2005), Mumbai (2006), and Moscow (2010) demonstrate the importance of identifying risks to mass transit and for continuing to protect the mode's infrastructure. All of these attacks involved IEDs detonated in mass transit systems, leading to approximately 470 deaths and 3,270 injuries.[7] The need for proven counter-IED technologies suitable for mass transit systems demands that key stakeholders coordinate efforts to pursue such technology.

Understanding the risk profile of a particular transportation mode is critical to identifying and mitigating vulnerabilities and capability gaps. TSA uses a range of tools to determine risks to surface transportation and to assess existing mass transit security programs.[8] These assessments are the basis for TSA's capability gap analysis and resource allocation for R&D efforts.

[4] TSA refers to mass transit as "transportation by a conveyance that provides regular and continuing general or special transportation to the public, but does not include school bus, charter, or sightseeing transportation." For the purposes of this review, DHS OIG is discussing subways when mentioning mass transit.
[5] http://www.apta.com/resources/statistics/Documents/FactBook/APTA_2011_Fact_Book.pdf, page 11.
[6] The 2012 Annual Progress Report for the National Strategy for Transportation Systems was published November 2012 by TSA.
[7] On March 11, 2004, 10 bombs were detonated on four different commuter trains, causing 191 deaths and more than 1,800 injuries in Madrid, Spain. The July 2005 London attacks resulted in 52 deaths and more than 770 injuries. The July 2006 attacks in Mumbai resulted in approximately 190 deaths and 600 injuries. In Moscow, a 2010 subway bombing killed 38 people and injured 102 people.
[8] TSA conducts the Transportation Sector Security Risk Assessment, Baseline Assessment for Security Enhancements Review, and annual mass transit threat assessments on a regular basis.

We assessed the DHS processes to identify and prioritize critical gaps in detecting IED threats against mass transit systems for R&D. We also examined TSA and S&T's coordination of R&D efforts to secure mass transit systems specifically against IED threats.

> Capability Gaps
> The difference between current operational capabilities and those capabilities needed to perform mission-critical objectives that remain unsatisfied.
> *Developing Operational Requirements,* DHS, 2008.

The TSA and S&T processes are successful in identifying and prioritizing capability gaps. Because many of these processes are new or were recently redesigned, we recommend that they be formally documented as policies or guidelines to ensure continuity in the future.

S&T and TSA Reorganized Working Groups and Redesigned Their Processes for Identifying Capability Gaps and Prioritizing R&D Projects.

As directed by the TS-SSP and the Mass Transit Modal Annex, TSA and S&T developed processes to identify capability gaps. The Surface R&D Working Group (RDWG) was originally chartered by TSA in 2007 and reorganized in 2011 to identify surface transportation capability gaps. S&T's Capstone Integrated Product Teams (IPTs), initiated in 2006 to prioritize and initiate R&D efforts, were dissolved in 2010 and replaced in part by the Surface Transportation Project IPT. As a result, the new working groups revised the processes for capability gap analysis and prioritizing R&D efforts.

The Surface RDWG Was Reorganized in 2011

The Transportation Systems Sector GCC established an RDWG to bring stakeholders together from across the sector to identify mission needs and capability gaps. Originally chartered in 2007, the objective of the RDWG is to improve the coordination and prioritization of sector-directed R&D efforts across all transportation security partners.

At its inception, the RDWG had hundreds of members representing nearly every Government and surface transportation agency, and transportation-related organization. However, the RDWG was ineffective, and several ad hoc splinter groups began to work without coordination or official guidance. They were trying to engage individual transit agencies informally, resulting in confusion and frustration.

In 2011, TSA reevaluated the RDWG, and decided to limit its membership to improve coordination and facilitate discussions and actions through one

centralized working group. The TSA Office of Security Policy and Industry Engagement (OSPIE), formerly known as the Office of Transportation Sector Network Management, invited a limited number of Federal and industry partners from the Transportation Sector GCC and the SCC to participate. The 74 current members include 8 Government agencies, a freight rail, a pipeline, 2 highway, and 21 mass transit organizations. The reorganized RDWG held its first formal meeting in May 2012.

S&T's Surface Transportation Project IPT Replaced the Transportation Security Capstone IPT

In 2006, S&T formed Capstone IPTs to bring together senior managers from S&T and other DHS components (S&T's "customers") to identify the components' operational needs and capability gaps and to prioritize R&D programs. The cross-functional Capstone IPTs were intended to reach consensus on long-term strategies for R&D efforts. By 2009, S&T had established 13 Capstone IPTs, each with its own Sub-IPTs and various Project IPTs. Initially, managers from the DHS components and the RDWG identified and submitted capability gaps to the Capstone IPT. The Capstone members merged overlapping gaps, and prioritized R&D projects based on available funding. Technical experts from the components identified project requirements. However, often experts did not have sufficient technical data for a complete understanding of those gaps.

In 2009, at the project level, the EXD, now part of the Homeland Security Advanced Research Projects Agency (HSARPA), formed a Project IPT to coordinate the surface transportation's technology development. Based on the collaborative relationship between S&T and TSA, the program managers decided to maintain the Project IPT, even after the Capstone process was determined to be ineffective and discontinued in 2010.

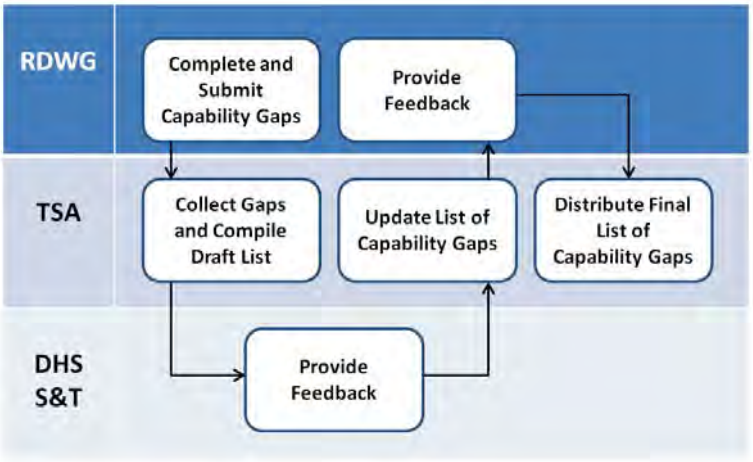
The Surface Transportation Project IPT is co-chaired by TSA's Office of Security Capabilities (OSC) and EXD, with members from OSPIE and representatives from other HSARPA Divisions. The IPT brings together entities developing solutions to fill the capability gaps through coordinated technology innovations, development of metrics, deliverables, and detailed schedules.

The partnership between S&T and TSA continues to grow and mature. Although early attempts by S&T to work directly with mass transit agencies were criticized by TSA, the IPT's efforts are currently well coordinated. According to S&T and TSA officials, the relationship between their components has "greatly improved."

S&T and TSA Redesigned the Gap Analysis Process

With the formation of the new RDWG, OSC Intermodal Division took the lead in 2012 to return to an annual review of capability gaps, as shown in Figure 3.[9]

Figure 3. Capability Gaps Process



Source: TSA Office of Security Capabilities

In May 2012, participating RDWG transportation agencies identified current gaps in their respective systems using the previously developed Capstone gaps as a sample format.[10] TSA consolidated the capability gaps, while S&T provided comments to clarify the related operational needs. The consolidation process combined 14 previously identified capability gaps and 22 new gaps, for a final list of 10 multimodal gaps designed to be broad enough for multiple projects but specific enough to define overarching operational requirements. After a final review by the RDWG, TSA distributed the list to DOT, National Protection and Programs Directorate (NPPD), S&T, and TSA project managers.

Based on our analysis, we agree with DHS officials that the new Surface RDWG provides an effective and appropriate venue to identify cross-modal capability gaps. Through the redefined gap analysis process, S&T and TSA work together with industry to identify more specific and refined capability gaps and feasible R&D projects to address them. According to DHS officials, the RDWG does not prioritize the identified capability gaps because it addresses multiple

[9] The reorganized RDWG assessed capability gaps only for surface transportation modes. Previous capability gaps included all TSA modes.
[10] Although all members are invited to participate in this process, only a few transportation agencies submitted capability gaps.

transportation modes with varying consequence, vulnerability, and threat levels. Solutions to address how the gaps are prioritized are ultimately the product of S&T's budget and funding decisions.

The RDWG gap analysis process was redesigned and implemented by a small number of TSA employees. Although a TSA official indicated that the new capability gap analysis process is based on the steps outlined in the TS-SSP, the current workflow and process have not been documented. Formal guidelines or policies will ensure continuity in future reviews.

Recommendation

We recommend that the Transportation Security Administration Office of Security Capabilities:

Recommendation #1: Formally document the newly implemented process for identifying capability gaps to ensure a standard process is established.

Management Comments and OIG Analysis

We evaluated TSA's formal and technical comments and have made changes to the report where appropriate. TSA's written response to the one recommendation, and our analysis, is included below. A copy of the formal response, in its entirety, appears in appendix B.

Recommendation #1: Formally document the newly implemented process for identifying capability gaps to ensure a standard process is established.

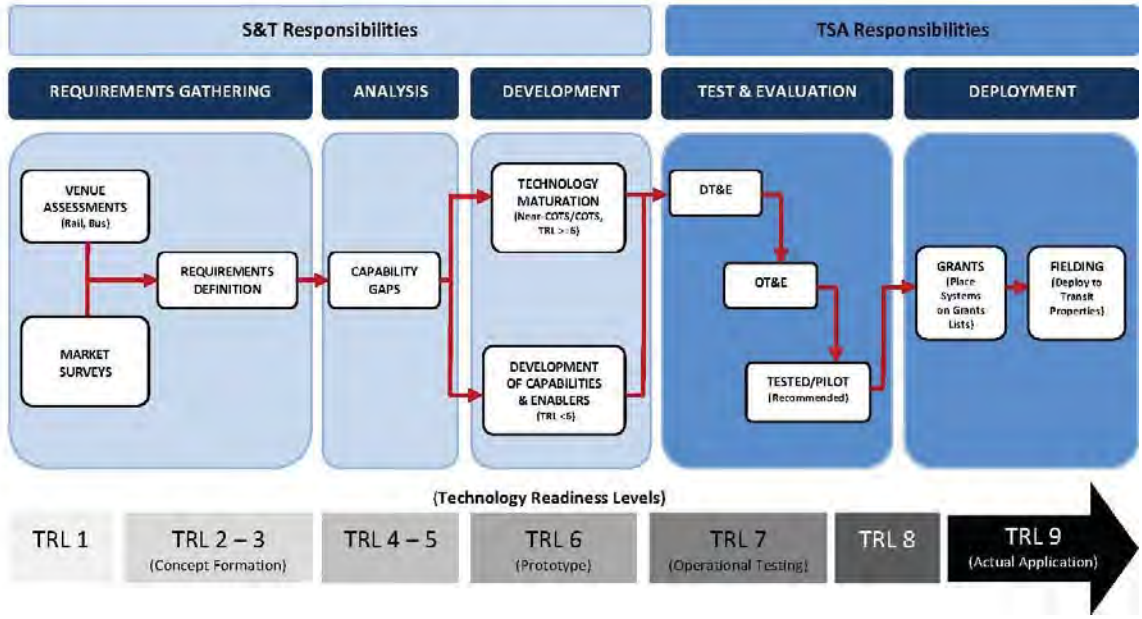
TSA Response: TSA concurs. TSA is documenting the Surface RDWG processes, including the process for identifying capability gaps, which will then be attached as an appendix to the formal Surface RDWG charter. The updated charter with appendix will be vetted by TSA and DHS with a target deadline of September 30, 2013, for finalizing the document.

OIG Analysis: The action proposed by TSA is responsive to the intent of this recommendation. We anticipate closing the recommendation when we receive and have reviewed the final documents. We consider the recommendation Resolved and Open.

S&T Has Created the Necessary Framework for the Development of Layered IED Detection Technology

Technology to secure the mass transit environment adequately has not yet been developed. However, S&T, in partnership with TSA, has developed a framework to identify and pursue R&D projects to mitigate gaps in securing mass transit systems. OSC and EXD developed separate but related processes in search of new technology.

Figure 4. Systems Engineering Approach To Technology Development



Source: S&T Explosives Division and OIG analysis

Figure 4 provides an overview of the S&T R&D approach to securing mass transit. It also indicates where S&T passes the development effort on to TSA for further review and testing. In addition, TSA tests and evaluates available off-the shelf equipment for use in the mass transit environment. Both approaches have identified operational requirements and provide guidance for DHS' technology development.

To sustain these efforts, it is important that TSA, S&T, and transit agency representatives continue to collaborate and communicate. Additionally, a management commitment to fund each stage of the R&D process fully is crucial to the viability of the S&T Surface Transportation Program.

Appendix A
Objectives, Scope, and Methodology

The Department of Homeland Security Office of Inspector General (OIG) was established by the *Homeland Security Act of 2002* (Public Law 107-296) by amendment to the *Inspector General Act of 1978*. This is one of a series of audit, inspection, and special reports prepared as part of our oversight responsibilities to promote economy, efficiency, and effectiveness within the Department.

This review was included in the OIG Fiscal Year 2013 Annual Performance Plan. Our objectives were to evaluate (1) how critical gaps in detecting improvised explosive threats against mass transit systems are identified and prioritized for research and development, and (2) how the TSA and S&T coordinate research and development efforts to secure mass transit systems. The scope of this review is limited to the mass transit mode of the transportation sector, specifically subways.

We conducted our fieldwork from October 2012 to March 2013. During that period, we interviewed officials from—

- TSA's Office of Security Capabilities;
- TSA's Office of Security Policy and Industry Enhancement;
- TSA's Office of Security Operations;
- TSA's Office of Intelligence and Analysis;
- DHS Science and Technology Homeland Security Advanced Research Projects Agency;
- S&T's HSARPA Explosives Division;
- The American Public Transportation Agency;
- The Johns Hopkins University Applied Physics Laboratory;
- The Washington Metropolitan Area Transit Authority; and,
- The Massachusetts Bay Transit Authority.

We also attended and interviewed police chiefs at the Mass Transit/Rail Security and Emergency Management Roundtable in Washington, DC, as well as the February Surface Transportation Integrated Project Team meeting held at TSA Headquarters.

In addition to testimonial evidence from interviews with subject matter experts, we requested and reviewed the following documentation from TSA, S&T, our interview subjects, and public sources. This included, but was not limited to:

- Charters, by-laws, membership lists, and minutes of the various councils and working groups;
- PowerPoint presentations by S&T and OSC;
- S&T budget information;
- NIPP, TS-SSP, Modal Annex;
- S&T's Surface Transportation Project Management Plan; and
- DHS Risk Assessments.

We conducted this review under the authority of the *Inspector General Act of 1978*, as amended, and according to the Quality Standards for Inspections issued by the Council of the Inspectors General on Integrity and Efficiency.

Appendix B
Management Comments to the Draft Report

U.S. Department of Homeland Security
701 South 12th Street
Arlington, VA 20598-6021

Transportation Security Administration

AUG - 5 2013

INFORMATION

MEMORANDUM FOR: Deborah L. Outten-Mills
Acting Assistant Inspector General for Inspections
U.S. Department of Homeland Security

FROM: John S. Pistole for
Administrator

SUBJECT: *Research and Development Efforts To Secure Rail Transit Systems*, OIG Project No. 12-040-ISP

Purpose

This memorandum constitutes the Transportation Security Administration's (TSA) response to the U.S. Department of Homeland Security's (DHS) Office of the Inspector General (OIG) draft report titled, *Research and Development Efforts To Secure Rail Transit Systems*, OIG Project No. 12-040-ISP.

Background

DHS conducted this audit from October 2012 to March 2013. This review was included in the OIG Fiscal Year (FY) 2013 Annual Performance Plan. The objectives of the audit were to evaluate (1) how critical gaps in detecting improvised explosive device threats against mass transit systems are identified and prioritized for research and development, and (2) how TSA and the DHS Science & Technology Directorate (S&T) coordinate research and development efforts to secure mass transit systems. The scope of the review was limited to the mass transit mode of the transportation sector, specifically subways. OIG interviewed numerous officials from TSA and DHS S&T. OIG also attended and interviewed police chiefs at the Mass Transit/Rail Security and Emergency Management Roundtable in Washington, DC, as well as the February Surface Transportation Integrated Project Team meeting at TSA headquarters.

Discussion

During 2011 and 2012, TSA reorganized the Surface Research and Development Working Group (Surface RDWG), which was originally chartered in 2007. After three formal meetings held from April to July 2013, TSA has refined last year's capability gaps to increase clarity and comprehensiveness of land-based transportation stakeholder needs. TSA has continued to receive positive feedback from the Surface RDWG participants on this outreach effort.

The Surface RDWG processes in 2012 were considered to be a proof of concept, thereby allowing for the identification of necessary changes or improvements prior to definition, validation, and formal documentation of RDWG processes in 2013. Accordingly, TSA planned to update its charter during FY 2013, which coincides with the implementation of the OIG recommendation. TSA will attach an appendix to the updated formal Surface RDWG charter providing the standardized surface transportation RDWG process.

Recommendation #1: Formally document the newly implemented process for identifying capability gaps to ensure a standard process is established.

TSA concurs. TSA is documenting the Surface RDWG processes, including the process for identifying capability gaps, which will then be attached as an appendix to the formal Surface RDWG charter. The updated charter with appendix will be vetted by TSA and DHS with a target deadline of September 30, 2013, for finalizing the document.

Appendix C
Major Contributors to This Report

William McCarron, Chief Inspector
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Megan Thompson, Inspector
Douglas Ellice, Chief Inspector

Appendix D
Report Distribution

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