

Surface Transportation Security Priority Assessment



March 2010

EXECUTIVE SUMMARY

Securing the Nation’s surface transportation network requires a coordinated effort among all levels of government, the private and nonprofit sectors, communities, and individual citizens. While much has been accomplished to date toward securing this network, a highly focused, collaborative effort is required to identify residual risks and associated solution paths. This report presents the results of a collaborative process that produced recommendations compiled from participating stakeholders’ individual recommendations for increasing the security of the surface transportation system.

The Administration conducted the *Surface Transportation Security Priority Assessment* through outreach across the spectrum of government and private sector stakeholders in surface transportation security. The study identified a set of 10 issue areas to examine, obtained input from surface transportation sector stakeholders, and analyzed the responses to reach a consensus set of priorities and recommendations. Four themes guided this effort: (1) enhancing security and reducing risk; (2) improving the efficiency and effectiveness of the Federal mission, organization, and program; (3) strengthening interactive stakeholder partnerships; and (4) employing a systems management approach to surface transportation security. This stakeholder collaboration produced recommendations that address policy gaps and obstacles, enhance coordination and unity of effort, and maximize the use of partner strengths and capabilities.

To effectively engage stakeholders, gather their input, and achieve recommendations, the Federal Government utilized the National Infrastructure Protection Plan (NIPP) Partnership. Owners/operators were represented by the four surface transportation Sector Coordinating Councils (SCCs). Federal agencies were represented by members of the Transportation Systems Sector Government Coordinating Council, which included representation from the U.S. Department of Homeland Security (DHS) and U.S. Department of Transportation. The State, Local, Tribal, and Territorial (SLTT) Government Coordinating Council provided input on local, State, and regional concerns.

The recommendations listed in Table 1 and detailed in Section V are the result of this effort. They provide a comprehensive framework for the continued improvement of surface transportation security and identify discrete areas of focus to guide the decisions and actions of security partners in applying their respective capabilities. In this manner, benefits can be directed toward both the missions of individual security partners and the shared goal of sector-wide surface transportation security.

Table 1. Recommendations

1. Designate a lead agency to coordinate periodic modal and cross-modal security risk analyses.
2. Implement an integrated Federal approach that consolidates capabilities in a unified effort for security assessments, audits, and inspections to produce more thorough evaluations and effective follow-up actions to reduce risk, enhance security, and reduce burdens on assessed surface transportation entities.
3. Identify appropriate methodologies to evaluate and rank surface transportation systems and infrastructure that are critical to the Nation.
4. Implement a multi-year, multi-phase grants program based on a long-term strategy for surface transportation security.
5. Establish a measurable evaluation system to determine the effectiveness of surface transportation security grants.
6. Establish an interagency process to inventory education and training (E&T) requirements and programs, identify gaps and redundancies in surface transportation owner/operator E&T, and ensure that Federal training requirements support counterterrorism and infrastructure protection.
7. Implement a unified environment for sharing transportation security information that provides all relevant threat information and improves the effectiveness of information flow.
8. Reemphasize National Infrastructure Protection Plan (NIPP) framework priorities with the Sector-Specific Agencies (SSA); surface transportation owners/operators; and State, local, tribal, and territorial (SLTT) partners in order to focus development and implementation of a relevant and representative model that enhances security of the Transportation Systems Sector partners.
9. Fully identify Federal roles and responsibilities in surface transportation security, taking steps to efficiently leverage resources and ultimately lead to a budget “cross cut” that extends Federal coordination to include both surface transportation safety and security.
10. Identify an interagency lead to establish a single data repository for all federally obtained security risk-related information on transportation systems and assets.
11. Coordinate data requests with the established single data repository to avoid redundant efforts, take advantage of existing data sets, and establish data access control.
12. Analyze the common features of existing analysis methods and tools, and then perform a gap analysis to identify additional characteristics that would ensure that analyses are more closely comparable and consistent with the risk assessment principles in the NIPP.

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13. Define a process to assess and certify extant industry risk assessments for ranking risk remediation projects under the Transit Security Grant Program or other similar Federal programs.
 14. Establish a fee-based, centrally managed “clearing house” to validate new privately developed security technologies that meet Federal standards.
 15. Encourage the use of SECURE™ (Systems Efficacy through Commercialization, Utilization, Relevance, and Evaluation) and FutureTECH™ programs within appropriate directives.
 16. Create a more efficient Federal credentialing system by reducing credentialing redundancy, leveraging existing investments, and implementing the principle of “enroll once, use many” to reuse the information of individuals applying for multiple access privileges.
 17. Collaborate with the SCCs to develop a proposal for security threat assessments standards.
 18. Incorporate formal and informal methods for surface transportation owners/operators, as well as SCCs that represent them, to provide direct input into setting surface transportation research and development priorities.
 19. Develop a formal, recurring surface transportation security grants process for meeting with surface transportation SCCs, owners/operators, and SLTT governments; collecting and adjudicating recommendations; and making final decisions.
 20. Review key policy issues and questions identified by the *Surface Transportation Security Priority Assessment* to address unresolved policy issues and provide solutions for resolving identified security gaps.

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I. INTRODUCTION

The surface transportation system of the United States is a vast, open system of interdependent networks that moves millions of passengers and millions of tons of commodities each year. Consisting of the subsectors of Mass Transit, Highways, Freight Rail, and Pipelines, this network is critical to the Nation's economy and the way of life of its citizens. Securing the surface transportation network from all hazards requires a national effort that leverages the strengths and capabilities of all levels of government, the private and nonprofit sectors, communities, and citizens.

For the past decade, the Nation's transportation network has been at elevated risk of attack. The recent failed terrorist plots against mass transit (Najibullah Zazi) and aviation (Umar Farouk Abdulmutallab) are powerful reminders that terrorists will go to great lengths to defeat the security measures that have been put in place since September 11, 2001. This Administration is determined to thwart terrorist plots and disrupt, dismantle, and defeat terrorist networks by employing and enhancing the multiple layers of defense that work in concert with one another to secure our country. The frank discussion in this assessment and the recommendations for improving surface transportation security measures and coordination with non-Federal partners are an important step in enhancing these layers.

President Obama has articulated the need to do more to safeguard surface transportation by building on existing security efforts. The President's guiding principles for homeland security, including working with key stakeholders, investing in the most pressing short- and long-term infrastructure needs, and safeguarding the transportation systems that Americans use every day, will lead to a more resilient surface transportation system that improves public safety and enables efficient commerce.

To support the Administration's interagency surface transportation security efforts, the Transborder Security Interagency Policy Committee (IPC) established and chartered the Surface Transportation Sub-IPC.¹ The *Surface Transportation Security Priority Assessment*, conducted by the Sub-IPC from June to August 2009, captures existing surface transportation security priorities, identifies interagency priorities for the next four years, and provides recommendations to the Transborder Security IPC on how to address existing security policy gaps in surface transportation security efforts. The recommendations identified in this *Assessment* present actionable measures to reduce redundancy and increase efficiency across the activities of various surface transportation stakeholders.

This report summarizes the methodology used to conduct the assessment, details actions taken by the Administration to enhance surface transportation security, identifies common themes used to establish priorities, and provides consensus recommendations for improving the Nation's surface transportation security.

¹ Presidential Policy Directive - 1 directs the National Security staff to manage the interagency process for national security policy. The Transborder Security IPC has lead responsibility for transnational security policy issues, including the intermodal transportation system of aviation, surface, and maritime sectors.

II. REPORT METHODOLOGY

The Sub-IPC conducted the *Surface Transportation Security Priority Assessment* by identifying policy issues that required further examination, requesting input from surface transportation sector stakeholders on those issue areas, and analyzing the responses to reach a consensus on a set of priorities and recommendations.

Issue Identification

To identify national interagency priorities and guide Federal efforts to secure the surface transportation sector, interagency staff conducted outreach across the spectrum of stakeholders in surface transportation security. Interagency staff worked with Federal Government stakeholders with jurisdiction over surface transportation policies and regulations, including the U.S. Departments of Homeland Security (DHS), Transportation (DOT), State, Defense, the Interior, Agriculture, Justice, and Energy, as well as components of these agencies, including the Transportation Security Administration (TSA), National Protection and Programs Directorate, Federal Railroad Administration, Federal Highway Administration, Federal Transit Administration, Pipeline and Hazardous Materials Administration, Federal Motor Carrier Safety Administration, and Federal Bureau of Investigation.

10 Issue Areas Assessed

- Federal Coordination
- Risk Management
- Research and Development
- Hardening
- Credentialing
- Federal Inspections
- Grants
- Training
- Information Sharing
- Rulemaking

In addition to the work conducted with Federal stakeholders, the Sub-IPC worked in close collaboration with and received invaluable input from the State, Local, Tribal, and Territorial Government Coordinating Council (SLTTGCC); and the Freight Rail, Highway, Pipeline, and Mass Transit Subsector Coordinating Councils (sub-SCCs).

A common set of themes emerged from these discussions with surface transportation security stakeholders. The interagency staff identified 10 issue areas commonly identified by surface transportation security stakeholders that require further review to improve the effectiveness of national surface transportation security. Interagency staff focused on developing consensus recommendations in these 10 issue areas to enhance the Nation's surface transportation security.

Gathering Input

The Surface Transportation Security Sub-IPC gathered additional input from the Federal agencies with jurisdiction over surface transportation policies and regulations, from surface transportation owners/operators, and from representatives of States and localities on the 10 issue areas identified by interagency staff.² Then, the Sub-IPC developed recommendations to improve the Nation's surface transportation security. The Sub-IPC utilized the National Infrastructure

² Enhancing critical infrastructure security within the Transportation Systems Sector is a responsibility shared among Federal, State, local, and tribal governments, as well as the private sector owners/operators. Since the private sector and State and local entities own and operate the majority of the transportation systems, a collaborative working partnership between the Federal Government and the private sector in fortifying all CIKR security efforts and initiatives from their inception is essential.

Protection Plan (NIPP) Partnership to convene the stakeholders to gather their input and achieve consensus recommendations. DHS established the NIPP organizational structure to coordinate the entire range of activities necessary to secure and enhance the resiliency of the Nation’s critical infrastructure and key resources (CIKR). These activities encompass national and sector planning and policy, program identification and implementation, and information sharing. The Transportation Systems Sector structure includes the following key elements:

Sector Partnership Entity	Transportation Systems Sector Role
Sector-Specific Agency (SSA)	<ul style="list-style-type: none"> ▪ The Transportation Security Administration is the SSA for the security of the land and air modes of the Transportation Systems Sector. ▪ The U.S. Coast Guard is the lead for the security of the maritime mode of the Transportation Systems Sector. ▪ The SSA coordinates activities to prepare for and respond to threats that could have a debilitating effect on the Nation’s security or economic well-being.
Transportation Systems Sector Government Coordinating Council (GCC)	<ul style="list-style-type: none"> ▪ The GCC consists of representatives from Federal departments and agencies, as well as representatives from State and local governments, that are relevant to the safety and security of the different transportation modes. It is further divided into modal subcouncils, which include members from a broad cross section of government agencies. ▪ The GCC maximizes coordination and information sharing at the operating level and institutionalizes a true partnership between DHS and other government partners. ▪ As the counterpart to the SCC, the GCC performs joint planning, implementation, and execution of the necessary sector-wide measures for Transportation Systems Sector protection and resiliency.
Transportation Systems Sector Coordinating Council (SCC)	<ul style="list-style-type: none"> ▪ SCCs serve as the Federal Government’s principal point of entry into each sector or mode for the purpose of jointly addressing the entire range of CIKR protection and risk management issues. ▪ Representatives from the surface transportation modes (i.e., highway, pipeline, freight rail, and mass transit) facilitate cross collaboration on transportation security policy and plans.
State, Local, Tribal, and Territorial Government Coordinating Council (SLTTGCC)	<ul style="list-style-type: none"> ▪ The SLTTGCC is composed of Homeland Security Directors or their equivalents across the country at all levels of State, local, tribal, and territorial government who have oversight responsibility for CIKR protection within their jurisdictions.

Effective collaboration requires that sensitive security information be shared to inform sector-wide approaches and sector priorities. In 2006, DHS established the Critical Infrastructure Partnership Advisory Council (CIPAC), which supports a legal framework designed to enhance and streamline ongoing and meaningful discussions between the government and private sector members of CIKR partnerships. This framework efficiently supports regular public-private consensus building and discussions on sector strategies, protective programs and measures, threats and vulnerabilities, and best practices. Under CIPAC, as discussed in Section V, *Assessment* participants convened to formulate consensus recommendations based on the input provided by the Federal agencies, SCCs, and SLTTGCC.

Federal Agencies – Input Methodology

The Surface Transportation Security Sub-IPC reviewed the effectiveness and efficiency of existing security efforts in the surface transportation modes by requesting that Federal agencies provide an overview of the Nation’s surface transportation security policies and identify existing Federal security programs for the 10 assessment areas. The resulting recommendations reflected the consensus of all departments participating in the *Assessment*. The following concepts encapsulate the majority of recommendations submitted by the Federal agencies:

- Improve Federal coordination to reduce unnecessary redundancies, streamline processes, and increase efficiency.
- Increase collaboration with surface transportation SCCs to involve owners/operators in the development of programs and policies.
- Evaluate current policies and programs for effectiveness so that innovative ideas and best practices may be built upon for enhanced surface transportation security.

Surface Transportation Sector Coordinating Councils – Input Methodology

The four surface transportation SCCs provided input on the 10 areas identified for review by the Surface Transportation Security Sub-IPC. The information contained in their response represents the consensus reached by the SCCs of the four surface transportation modes from input derived from throughout their membership. The surface transportation SCCs highlighted several high priority recommendations for improving surface transportation security for the Nation. Three major concepts summarize these recommendations:

- Increase surface transportation owner/operator involvement in establishing priorities, evaluating programs, and implementing policies.
- Improve coordination of government effort to reduce unnecessary redundancies, streamline processes, and increase efficiency.
- Adopt a systems approach to surface transportation security, including an understanding of the surface transportation sector as a complex, interconnected system of networks and functions.

Surface Transportation Modes

Mass transit, commuter and long-distance passenger rail, freight rail, commercial vehicles (including intercity buses), and pipelines, and related infrastructure (including roads and highways), that are within the territory of the United States.

Executive Order 13416

State, Local, Tribal, and Territorial Government Coordinating Council – Input Methodology

The Sub-IPC engaged the SLTTGCC to work with the SLTT community on national surface transportation security issues. The SLTTGCC established a Transportation Security Review Working Group, composed of a cross section of Homeland Security Advisors, critical infrastructure security analysts and managers, and representatives from State departments of transportation and transit agencies, to contribute a SLTT perspective to the *Assessment*. The SLTTGCC's comments included in this report resulted from this collaborative partnership between the Sub-IPC and SLTTGCC. Four themes are evident throughout the SLTTGCC comments:

- Use a formal process for engaging stakeholders to obtain input prior to and throughout the process of policy and program development and implementation.
- Examine, consolidate, or streamline security programs to improve their efficacy, reduce duplication, and ease the strain on resources.
- Draw upon lessons learned and best practices from stakeholders on a recurring basis to make continuous improvements to policies and programs.
- View surface transportation security from a systems approach.

III. SECURITY ACTIONS TO DATE

The Administration has made important progress in advancing surface transportation security for the Nation. Significant Federal efforts and resources augment and continue the improvements to surface transportation security made by private industry and all levels of government. Hard work and innovation have been required to create a coordinated approach. These collective efforts have directly contributed to keeping the Nation's surface transportation systems safe and secure.

Highlights of the Federal Government's surface transportation security accomplishments include hiring additional personnel; providing additional grant funds for high priority projects; enhancing tools for training, exercises, and information sharing; and upgrading technology. Key accomplishments within each of these areas include the following:

"We will not live our lives in fear, but rather in confidence, as we strengthen our ability to prevent attacks and reduce our vulnerabilities wherever they exist."

John Brennan
Assistant to the President for Homeland
Security and Counterterrorism

"A New Approach to Safeguarding Americans"
August 6, 2009

Enhancing security through personnel:

- Hiring an additional 100 Surface Transportation Security Inspectors
- Approving 15 new Visible Intermodal Prevention and Response (VIPR) teams dedicated solely to surface transportation security
- Creating a real, visible, and unpredictable law enforcement security presence in the transit system through support from the American Recovery and Reinvestment Act (ARRA) Transit Security Grant Program (TSGP) by hiring over 240 new law enforcement officers, including:
 - 9 Explosives Detection Canine Teams with a total of 9 officers
 - 4 Mobile Explosives Detection Screening Teams with a total of 16 officers
 - 53 Anti-Terrorism Teams with a total of 218 officers

Enhancing security through better tools:

- Conducting more than 13 exercises through the Inter-Modal Security Training and Exercise Program
- Developing a transportation security Information Sharing and Analysis Center
- Conducting Corporate Security Reviews on critical transportation systems
- Developing and implementing plans for inspecting critical transportation systems

"...the role of government is to provide investment that spurs innovation and common-sense ground rules..."

Remarks by President Obama on
Innovation and Sustainable Growth
September 21, 2009

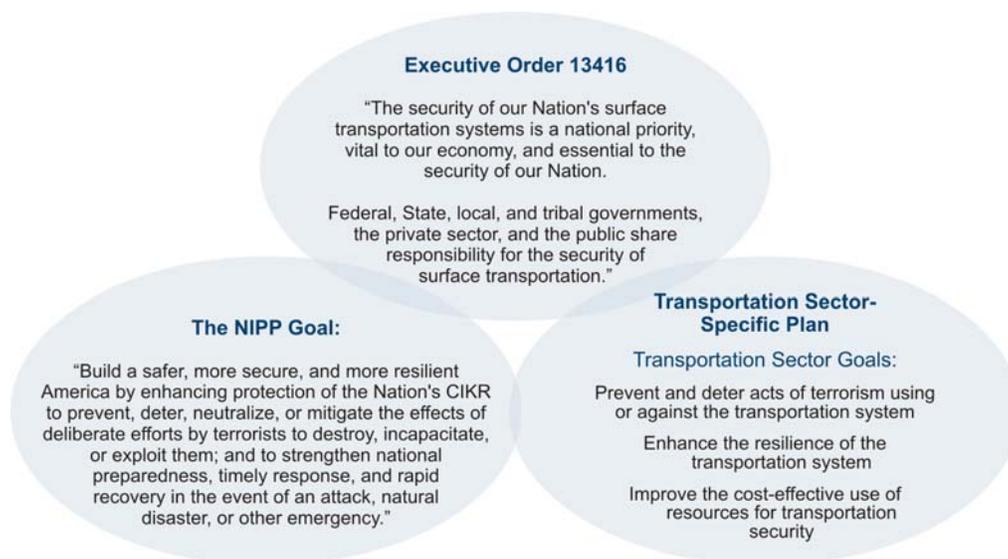
Enhancing security through technology improvements:

- Obligating more than 60 percent of the \$1 billion in ARRA funds given to TSA toward providing additional transportation screening technology, some of which may have applications in surface transportation security

- Modernizing the information technology infrastructure used to vet the identity of travelers and transportation workers
- Using terrorist databases to continuously vet Commercial Drivers License/Hazardous Materials Endorsement holders
- Completing blast analyses of all underwater passenger rail tunnels
- Awarding ARRA TSGP funding aimed at addressing critical vulnerabilities on several tunnels and related structures

It is critical to recognize the security measures currently in place to determine a strategic path forward for addressing the Nation’s surface transportation security. Measures such as Executive Orders, Homeland Security Presidential Directives, national plans and strategies, and legislation, may be needed to clarify Federal roles and responsibilities and set national priorities, including policies for the protection of CIKR. The *Assessment* aims to build upon current directives and authorities to improve the Nation’s surface transportation security.

- *Executive Order 13416: Strengthening Surface Transportation Security*
- *Homeland Security Presidential Directive (HSPD) 7: Critical Infrastructure Identification, Prioritization, and Protection*
- *HSPD-9: Defense of United States Agriculture and Food*
- *National Infrastructure Protection Plan, including the Transportation Systems Sector-Specific Plan and Modal Annexes³*
- *National Strategy for Transportation Security*
- *Homeland Security Act of 2002 (Public Law 107-296)*
- *Aviation and Transportation Security Act (Public Law 107-71)*
- *Implementing Recommendations of the 9/11 Commission Act of 2007 (Public Law 110-53)*
- *Intelligence Reform and Terrorism Prevention Act of 2004(Public Law 108-458)*



³ The Transportation Systems Sector-Specific Plan and Modal Annexes are currently undergoing review. Updated versions are expected to be released in 2010.

IV. COMMON THEMES

Several common strategic policy themes emerged during the assessment process and merit special attention from the Transborder Security IPC and the Administration because of their significance:

- **Enhancing Security** – Improvements in security activities and coordination are needed to effectively reduce and manage risk and enhance security within surface transportation.
- **Improving Efficiency and Effectiveness** – Unity of effort within Federal agency missions, organizations, and programs is often impeded by redundancy and fragmentation.
- **Strengthening Stakeholder Partnerships** – Improvements in stakeholder outreach and collaboration are needed to identify gaps and interdependencies to determine the appropriate and most effective strategies and programs and then to execute them.
- **Employing a Systems Management Approach** – The inability to apply an integrated systems management approach to assessing risk and improving security and resilience is shortsighted and does not fully account for a networked surface transportation system.

Similar concepts under these themes are reflected throughout the *Assessment* submissions by the Federal agencies, SLTTGCC, and surface transportation SCCs. Though stakeholder input indicates a strong need for improvement in various areas, it also supports the overarching policy outlined in the 2009 NIPP and the Transportation Systems Sector-Specific Plan (TS-SSP).

Enhancing Security

Unlike commercial passenger aviation, which affords a close examination of persons travelling, surface transportation modes tend to operate in a much more open environment, making it difficult to screen workers, passengers, or cargo on a regular basis. As a result, surface attackers can be much more opportunistic and can be less reliant on novel attack methods.

Assessment participants agreed that a great deal has been accomplished to improve surface transportation security. However, more needs to be done to enhance security and more effectively reduce and manage risk within surface transportation. Currently, there are multiple Federal programs and personnel with overlapping security missions. A coordinated approach to align surface transportation security programs with other critical infrastructure protection efforts—including threat and risk assessments, suspicious incident reporting, information sharing, and technical assistance— will save resources, produce more consistent data, and reduce the burden on owners/operators.

“Homeland security partners must provide and receive information and assessments on current and emerging risks in time to carry out their risk management responsibilities, while enjoying access to the data, tools, and expertise to make informed risk management decisions.”

Quadrennial Homeland Security Review
February 2010

The strategy guiding surface transportation security should focus on the following:

- Using intelligence to identify potential threats
- Employing programs and procedures that allow for better identification and interdiction of threats prior to their arrival in the United States
- Engaging system operators in intelligence sharing, security planning, and operations
- Ensuring that key transportation workers are vetted
- Increasing frontline worker and public security awareness
- Creating a more stringent, less opportunistic environment for terrorist attack planning (e.g., non-intrusive inspection devices, canine teams, random bag checks, VIPRs, and counter-surveillance)
- Changing operations to reduce vulnerabilities and potential consequences and to thwart attempts to circumvent security measures
- Hardening critical infrastructure (e.g., intrusion detection, facility hardening, smart surveillance, and common operating picture development)

Improving Efficiency and Effectiveness

Some *Assessment* participants recommended more effective Federal interagency coordination on surface transportation security policy and programs. They noted that more effective coordination would help reduce duplication of effort, confusion regarding accountability, and strained resources. Ineffective Federal coordination is often magnified when State and local governments and private sector owners/operators implement federally sponsored programs. Examples of this perceived ineffective coordination include the following:

- Multiple Federal agencies carrying out competing and uncoordinated vulnerability and risk assessments
- Redundant security and safety inspections
- Overlapping planning and training activities
- A Research and Development (R&D) agenda that may not always be fully coordinated and may not fully reflect State and local government and private sector owner/operator interests, experience, or needs

“We must and we will build up the working relationships with the other Federal agencies whose information, skill and expertise is essential to execution of a coordinated, fully functioning homeland security strategy...”

Secretary of DHS Janet Napolitano
Nomination Testimony
January 15, 2009

As noted throughout the *Assessment*, stakeholders from outside the Federal Government believe that unity of effort can only be achieved when the Federal Government appropriately considers the views of owners/operators and SLTT governments in the development and implementation of surface transportation security policy and programs. These security partners bear substantial responsibility for the surface transportation network and contribute to sector-wide surface transportation security. Owners/operators are directly accountable on a daily basis to their

employees, customers, and the general public for both the physical and cybersecurity of their systems. States and municipal governments are responsible for infrastructure protection, including surface transportation, within their jurisdictions. Enhanced Federal coordination should avoid duplicate efforts, ensure that security activities are coordinated across agencies, and utilize focused resources.

A strong partnership requires collaboration among the SSA, GCC, and SCCs. As the SSA for the Transportation Systems Sector, TSA is responsible for working with private sector owners/operators through the sector partnership structure to develop and maintain the TS-SSP, for coordinating on the Federal level through the Transportation GCC, and for determining and coordinating sector-specific priorities and initiatives across the Federal agencies. The perception that Federal coordination is less than effective indicates that the GCC is not functioning properly and that established roles and responsibilities have not been well communicated and are being disregarded. Enhancing communication and collaboration between the partners must be a priority.

Strengthening Stakeholder Partnerships

External stakeholders generally believe that they should be more engaged by the Federal Government in the development and implementation of surface transportation security policy and programs. Areas in which early and more meaningful stakeholder input would lead to greater national harmonization, consensus, and unity of effort include the following:

- Transportation infrastructure data collection and risk assessments
- Technical assistance and grant program priorities
- Transportation worker vetting and credentialing programs
- Transportation security rulemaking and inspection regimes
- Common standards for physical hardening and resilience

“We must therefore be more effective at defining our critical assets and providing our private sector and their leaders with the knowledge and technical assistance to help them secure these assets.”

Secretary of DHS Janet Napolitano
Council on Foreign Relations Speech
July 29, 2009

As outlined in the 2009 NIPP, implementation and maintenance of a collaborative, multidimensional, public-private sector partnership among Federal, State, and local governments; regional coalitions; and private industry can lead to a more secure surface transportation system. The Partnership Model outlined in the NIPP—the principal framework adopted to execute this partnership—requires an unprecedented level of commitment and cooperation among its members. Weak elements of the partnership, multiple or competing communication channels, or a lack of mutual respect for the responsibilities and interests of the individual partners will compromise realization of the NIPP goals.

The Transportation SSA and GCC engage non-Federal partners to share information, collaborate, and coordinate on surface transportation policies and programs. Non-federal entities perceive their engagement as too late in the process--only after Federal momentum has gathered behind a policy issue or program initiative. Additionally, the number of Federal agencies involved and the redundant communication channels that exist outside of those provided through the NIPP Partnership reduce the efficacy of outreach efforts. These factors reduce the quality and value that a more effective intergovernmental public-private sector partnership would provide. Therefore, effective senior leadership is essential on all sides of the partnership.

Employing a Systems Management Approach

Surface transportation is a vast, open system of interdependent networks. Establishing a common ground between the private sector and State and local governments can lead to greater progress than a vertical or an individualized approach to assessing risk and advancing programs for security and resilience within individual subsectors. The Sub-IPC identified the following priorities as guidance for viewing surface transportation security from a more holistic or systems management perspective:

- Use a risk management approach consistent with the NIPP.
- Identify risk through a deliberate and collaborative risk assessment.
- Analyze sector interdependencies to identify vulnerabilities, consequences, and mitigation strategies.

The NIPP outlines a deliberate systems management approach for continuous improvement in security and resilience in the form of the Risk Management Framework. The TS-SSP builds on that framework by characterizing transportation sector risk assessments into one of three tiers: (1) mission-, asset-, and system-specific assessments; (2) modal assessments; and (3) cross-modal comparative analysis. The document then profiles the sector's primary assessment models. The Federal Government has implemented a risk management framework consistent with the NIPP and continues to engage its non-Federal surface transportation partners in its refinement and application.

The systems management approach uses a deliberate method to structure decisions; assess threat, vulnerability, and consequences; set priorities for attention; and ensure unity of effort in the implementation of policies and programs among all stakeholders. The ultimate measures of performance are enhanced security and resilience, which are reflected in the reduction of risk over time.

“For too long, we have operated and funded our transportation systems in a piecemeal fashion – with highways, freight railroads, seaports, and aviation operating in parallel, yet never fully synchronized... We need policies that treat these transportation assets holistically – as a highly sophisticated network that ensures commerce can flow freely.”

Secretary of DOT Ray LaHood
Remarks on Supply Chain Infrastructure
May 11, 2009

However, there are challenges to this approach. Even after overall risks to surface transportation networks and systems are identified through a purposeful and collaborative process of risk assessment, the SSA will help the Federal Government, SLTT governments, and owners/operators target the use of limited resources to optimize protection of the Nation's surface transportation assets.

The Executive Branch will emphasize State/regional/private sector analysis of the surface transportation network where interdependencies between and among sectors can be more readily identified and where second- and third-order consequences of an attack or disruption can be better assessed and mitigated. For example, some key vulnerabilities to a given surface transportation subsector may not exist in a single subsector, but may exist elsewhere in the intermodal transportation system or in another sector on which surface transportation depends. Such network analysis requires that all Federal stakeholders encourage and support State and local government and private sector owners/operators in their efforts to analyze network interdependencies within their jurisdictions.

V. RECOMMENDATIONS

Recognizing the need for an increased focus on issues of surface transportation security, the Surface Transportation Security Sub-IPC requested input from surface transportation sector partners and stakeholders on various surface transportation security topic areas identified by the IPC. Surface transportation industry owners/operators, represented by the Surface Transportation SCCs, and Federal agency partners provided key priorities and recommendations for improving national surface transportation security. Representatives of the SLTTGCC also provided input in the form of specific recommendations from an SLTT perspective and through commentary on the Federal documents. The input provided the basis for the development of the recommendations included in this section.

Transportation Systems Sector Vision

A secure and resilient transportation network, enabling legitimate travelers and goods to move without significant disruption of commerce, undue fear of harm, or loss of civil liberties.

Transportation Systems Sector-Specific Plan

The Sub-IPC focused on providing strategic policy recommendations to guide the Administration's surface transportation security operational components in the effort to increase the security provided to passengers and commerce that depend on the Nation's surface transportation infrastructure and assets. The effectiveness and efficiency of Federal security efforts are directly enhanced by improving surface transportation at the national level. Therefore, the *Assessment* identified areas for cost-saving measures that, if properly implemented, can redirect funding to programs that enhance surface transportation security. It is important to emphasize that, rather than developing tactical recommendations, the Sub-IPC's strategic policy performance guidelines allow the operational components of the government and system owners/operators to do what they do best—operate and secure the Nation's surface transportation systems.

The modal SCCs and Federal agency stakeholders brought their recommendations to a CIPAC workshop, held on August 11, 2009, to develop consensus recommendations. Focus was placed on providing cost-effective recommendations that reduce unnecessary redundancy. Many of the themes and recommendations developed through the *Assessment* directly link with recommendations cited in independent reports, such as those authored by the Government Accountability Office (GAO). Consistent themes between the GAO and the *Assessment* include the need to consider industry best practices, coordinate risk assessments and share information across the Federal agencies, incorporate vulnerability and consequence into risk assessments, and improve the grant process by clarifying Federal roles and tracking performance.

This section includes recommendations developed during the CIPAC workshop. Each recommendation includes a suggestion for a lead agency to execute the action item. While lead agencies are responsible for accomplishing the tasks, it is also recognized that many of the action items cannot be accomplished without the support and participation of other agencies. To that end, some of the supporting agencies have also been identified. Supporting agencies must be accountable for providing the lead with all necessary information and appropriate support for accomplishing the action item.

Recommendation 1

Designate a lead agency to coordinate periodic modal and cross-modal security risk analyses.

Lead Agency:	TSA
Supporting Agencies:	DHS/National Protection and Programs Directorate (NPPD); DOT; other Federal agencies involved in the risk assessment of surface transportation assets and infrastructure

A process and procedure is needed to manage and coordinate modal and cross-modal security risk analyses and assessments. Although multiple Federal and SLTT entities conduct important risk assessments on surface transportation assets and infrastructure, most of this data is not easily available to other Federal and SLTT security partners for review, analysis, or decisionmaking. Differing methodologies and approaches also make it difficult to compare data from varying assessments. Therefore, a centralized process to coordinate risk assessments of key transportation assets and infrastructure will help ensure that information is available to make risk-based security decisions and spend resources efficiently.

GAO Recommendation

Conduct a risk assessment that integrates all three elements of risk—threat, vulnerability, and consequence... from its own sources as well as those provided by other Federal and industry stakeholders.⁴

Recommendation 2

Implement an integrated Federal approach that consolidates capabilities in a unified effort for security assessments, audits, and inspections to produce more thorough evaluations and effective follow-up actions for reducing risk, enhancing security, and minimizing burdens on assessed surface transportation entities.

Lead Agency:	TSA
Supporting Agencies:	DHS/ NPPD; DOT; other Federal agencies involved in the inspection, audit, and assessment of surface transportation assets and infrastructure

While TSA is the primary Federal authority for transportation security assessments, audits, and inspections, there are other Federal inspection programs and personnel with overlapping inspection and assessment roles. A coordinated approach to align surface transportation security programs within the Federal Government—including threat and risk assessments, suspicious incident reporting, information sharing, the NIPP Partnership, and technical assistance—will save resources, produce more consistent data, and reduce the burden on owners/operators. Cross training in surface transportation modes could also improve the efficacy of inspectors.

GAO Recommendation

Develop security standards that reflect industry best practices and can be measured, monitored, and enforced by TSA rail inspectors and, if appropriate, rail asset owners.⁵

⁴ U.S. Government Accountability Office, *Key Actions Have Been Taken to Enhance Mass Transit and Passenger Rail Security, but Opportunities Exist to Strengthen Federal Strategy and Programs*, GAO-09-678 (Washington D.C.: GAO, 2009), 60, <http://www.gao.gov/new.items/d09678.pdf>.

⁵ U.S. Government Accountability Office, *Efforts to Strengthen Aviation and Surface Transportation Security Continue to Progress, but More Work Remains*, GAO-08-651T (Washington D.C.: GAO, 2008), 20, <http://www.gao.gov/new.items/d08651t.pdf>.

Recommendation 3

Identify appropriate methodologies to evaluate and rank surface transportation systems and infrastructure that are critical to the Nation.

Lead Agency:	TSA
Supporting Agencies:	DHS/NPPD; DOT; other Federal agencies involved in criticality assessment of surface transportation assets and infrastructure

Surface transportation modes differ significantly based on size, location, ownership, capacity measures, and redundancy of operations. These differences make it challenging to prioritize assets and systems at the sector level. A coordinated initiative to develop processes and methodologies for assessing surface transportation assets and infrastructure and ranking their criticality would help target the use of limited resources in order to optimize protection of the Nation's surface transportation assets.

Recommendation 4

Implement a multi-year, multi-phase grants program based on a long-term strategy for surface transportation security.

Lead Agency:	TSA
Supporting Agencies:	DHS/NPPD; DHS/Federal Emergency Management Agency (FEMA)

Currently, TSA grants for surface transportation security are focused on projects that will complete risk reduction efforts based on risk analyses and critical infrastructure determinations, which is in full support of recommendations 1 and 3. Reflecting a long-term security strategy, grant programs allow phases of multi-year, multi-phase projects to be funded separately, beginning with initial project design. Segmenting large projects into smaller components not only brings grant projects to completion more quickly, but also provides strategic planning for future grant funding needs and ensures closer alignment of Federal and security partner long-term priorities.

Recommendation 5

Establish a measurable evaluation system to determine the effectiveness of surface transportation security grants.

Lead Agency:	TSA
Supporting Agencies:	DHS/NPPD; DHS/FEMA

Of the risk elements—threat, vulnerability, and consequence—TSA’s surface transportation security grants affect risk reduction through mitigation of vulnerabilities, and to a lesser extent, consequences. Therefore, a methodology to measure grant effectiveness must consider the risk reduction environment of the specific surface transportation security grant. Coordination between the Federal Government and private sector owners/operators is key to determining an appropriate evaluation methodology.

The implementation of multi-phased grant projects will make it more feasible to measure project effectiveness prior to the project completion stage, allowing the effectiveness of some projects to be evaluated at an earlier project phase.

GAO Recommendation

Define TSA and FEMA roles for managing and monitoring the TSGP, develop a plan with milestones for measuring TSGP performance, and develop a process to systematically collect data, track grant activities, and communicate the availability of grant funding to transit agencies.⁶

Recommendation 6

Establish an interagency process to inventory education and training (E&T) requirements and programs, identify gaps and redundancies in surface transportation owner/operator E&T, and ensure that Federal training requirements support counterterrorism and infrastructure protection.

Lead Agency:	TSA
Supporting Agencies:	DHS/NPPD; DOT; other Federal agencies involved in security education and training in the transportation sector

The surface transportation modes recognize security training as a high priority and have invested significant resources and implemented programs to train personnel at all levels, both in accordance with and in the absence of Federal regulations. Federal grants have provided resources used in these efforts. Security awareness training for employees with an emphasis on observation, recording, and reporting has been implemented in some sectors. However, while training of those tasked with security functions is a necessity, inconsistent or duplicative training programs from different agencies should be avoided. Security training performed under one set of regulations should satisfy similar requirements for other Federal agencies. In discharging its responsibilities under Implementing Recommendations of the 9/11 Commission Act and the Aviation and Transportation Security Act, TSA has been working with the transportation owners/operators to examine best practices and develop future Federal security training requirements.

⁶ U.S. Government Accountability Office, *DHS Allocates Grants Based on Risk, but Its Risk Methodology, Management Controls, and Grant Oversight Can Be Strengthened*, GAO-09-491 (Washington D.C.: GAO, 2009) <http://www.gao.gov/new.items/d09491.pdf>.

Recommendation 7

Implement a unified environment for sharing transportation security information that provides all relevant threat information and improves the effectiveness of information flow.

Lead Agency:	TSA
Supporting Agencies:	DHS/NPPD; DOT

The Federal Government has made significant strides in creating the environment and infrastructure necessary to foster information sharing between the Federal Government and surface transportation security partners and stakeholders. To ensure the proper flow of relevant information and intelligence regarding surface transportation security, the Federal Government must continue to foster information sharing consistent with legislation, regulations, and policy in each of the following ways: (1) internally within departments; (2) horizontally between both law enforcement agencies and the intelligence community; (3) vertically with SLTT partners and private sector stakeholders; and (4) outwardly to law enforcement and intelligence agencies of foreign allies and appropriate international institutions. A collaborative approach to information sharing enables stakeholders to determine how best to apply their resources to the entire spectrum of risk management activities.

Recommendation 8

Reemphasize NIPP framework priorities with the SSA, surface transportation owners/operators, and SLTT partners in order to focus development and implementation of a relevant and representative model that enhances security of the Transportation Systems Sector partners.

Lead Agency:	TSA
Supporting Agencies:	DHS/NPPD; DOT

The transportation sector is very diverse, including multiple modes and other entities that operate cross-modally throughout the supply chain. The role of the SSA shall be reinforced as the primary point of contact for coordination of transportation security matters. Although an effective and well-balanced SCC that is representative of the transportation sector has not been established, coordination groups based on the modes of transportation (i.e., highway, pipeline, freight rail, and mass transit) have collaborated on transportation security policy and plans. Reaching agreement on a broader, more representative body for the entire sector is challenging; however, the Federal Government continues to work on the creation of an overarching transportation-level coordination group.

Recommendation 9

Fully identify Federal roles and responsibilities in surface transportation security, taking steps to efficiently leverage resources and ultimately lead to a budget “cross cut” that extends Federal coordination to include both surface transportation safety and security.

Lead Agency:	TSA
Supporting Agencies:	DHS/NPPD; DOT; other Federal agencies with security responsibilities in surface transportation

Established roles and responsibilities shall be reinforced within the Federal Government. Homeland Security Presidential Directive (HSPD)-7 identifies the roles and responsibilities of Federal agencies to enhance the protection of the Nation’s critical infrastructure and key resources (CIKR). The NIPP implements HSPD-7 and recognizes TSA as the SSA for the Transportation Systems Sector. The Department of Transportation and other agencies collaborate with TSA on all matters relating to transportation security and infrastructure protection, and play a primary role in recovery of the transportation system.

Recommendation 10

Identify an interagency lead to establish a single data repository for all federally obtained security risk-related information on transportation systems and assets.

Lead Agency:	TSA
Supporting Agencies:	DHS/NPPD; DOT; other Federal agencies involved in the risk assessment of surface transportation assets and infrastructure

Results of assessments are scattered across multiple departments and are not readily available for sharing among decisionmaking bodies. Consistent with the protection of sensitive transportation security vulnerabilities, an examination of the legitimate needs for sharing should be undertaken.

GAO Recommendation

Establish a mechanism to systematically coordinate risk assessment activities and share the results of these activities among the Federal partners.⁷

⁷ U.S. Government Accountability Office, *Federal Efforts to Strengthen Security Should Be Better Coordinated and Targeted on the Nation's Most Critical Highway Infrastructure*, GAO-09-57 (Washington D.C.: GAO, 2009), 57, <http://www.gao.gov/new.items/d0957.pdf>.

Recommendation 11

Coordinate data requests with the established single data repository to avoid redundant efforts, take advantage of existing data sets, and establish data access control.

Lead Agency:

TSA

Supporting Agencies:

DHS/NPPD; DOT; other Federal agencies involved in the risk assessment of surface transportation assets and infrastructure

In the course of their responsibilities, multiple Federal agencies may need to contact the same surface transportation owners/operators about similar security issues without coordinating within the Federal Government. This situation often exacerbates stakeholder confusion regarding the roles of the multiple Federal agencies that have an interest in surface transportation security. This overlap may waste resources and undermine stakeholders' willingness to cooperate with Federal security initiatives.

Recommendation 12

Analyze the common features of existing analysis methods and tools, and then perform a gap analysis to identify additional characteristics that would ensure that analyses are more closely comparable and consistent with the risk assessment principles in the NIPP.

Lead Agency:

TSA

Supporting Agencies:

DHS/NPPD; DOT; other Federal agencies involved in the risk assessment of surface transportation assets and infrastructure

Currently, there are a myriad of methodological approaches for determining risk in the surface transportation modes, which limits the comparability of results across modes. An emerging methodology that may alleviate such challenges is the Transportation Sector Security Risk Assessment (TSSRA), which is due to complete its first transportation sector comparative risk analysis in early 2010. TSSRA uses proxies (e.g., assessing energy consequences to a pipeline disruption) to separately evaluate the components of risk: threat, vulnerability, and consequences.

Recommendation 13

Define a process to assess and certify extant industry risk assessments for ranking risk remediation projects under the Transit Security Grant Program or other similar Federal programs.

Lead Agency:	TSA
Supporting Agencies:	DHS/NPPD; DOT; other Federal agencies involved in the risk assessment of surface transportation assets and infrastructure

Because risk assessments developed for the use of surface transportation owners/operators are designed to achieve specific purposes, sharing them has provided limited benefit for the Federal Government. Greater analysis of those risk assessments, however, can provide value to both the owners/operators of those systems and the Federal Government. For example, in determining awards of security grants for mass transit, all relevant security partners could benefit from a joint understanding of transit agencies' views of their critical facilities and the cost of securing them.

Recommendation 14

Establish a fee-based, centrally managed "clearing house" to validate new privately developed security technologies that meet Federal standards.

Lead Agency:	TSA
Supporting Agencies:	DHS/Science and Technology (S&T); DOT; other Federal agencies involved in R&D of surface transportation security technologies

The Federal Government identifies and sets national guidelines for security technologies and drives continued innovation through cooperative public-private efforts. Much of the new security technology is developed by the private sector based on identified gaps, government requirements, technology innovation, or industry R&D. Privately developed technologies must be tested to ensure they achieve the desired security results. Making appropriate standards available for review by industry will reduce burdens on the Federal Government and technology vendors in determining the correct alignment of technologies with testing facilities and processes. A standardized, centrally managed "clearing house" could streamline the process to validate crucial surface transportation security technologies.

Recommendation 15

Encourage the use of SECURE™ (Systems Efficacy through Commercialization, Utilization, Relevance, and Evaluation) and FutureTECH™ programs within appropriate directives.

Lead Agency:	DHS/S&T
Supporting Agencies:	DHS/TSA; DOT; other Federal agencies involved in R&D of surface transportation security technologies

SECURE™ and FutureTECH™ provide structured models for DHS to work with the private sector on developing and innovating technologies that align with the needs of its operating components, first responders, and owners/operators. In many cases, these needs may represent large, available markets. Despite the potential market benefits and insights into Federal security technology needs, technology vendors and private R&D organizations do not fully utilize these programs.

Recommendation 16

Create a more efficient Federal credentialing system by reducing credentialing redundancy, leveraging existing investments, and implementing the principle of “enroll once, use many” to reuse the information of individuals applying for multiple access privileges.

Lead Agency:	DHS/Screening Coordination Office
Supporting Agencies:	DHS/TSA; DOT; other Federal agencies involved in credentialing of surface transportation workers

Credentials serve as an important tool in validating the access of transportation workers who work in secure areas of the Nation’s transportation system, including railroad terminals, mass transit stations, and other surface transportation facilities. Ensuring that only workers that do not pose a risk are allowed unescorted access to secure areas is important to help protect the transportation system. Some surface transportation workers, such as truck drivers, regularly access secure areas at multiple transportation facilities. The current surface transportation environment necessitates that individuals who work in different areas of the surface transportation arena obtain multiple credentials. For example, a truck driver who needs a Commercial Driver’s License may also have to obtain a Hazardous Materials Endorsement, a Transportation Worker Identification Credential, a Free and Secure Trade card or other border crossing document, an employer credential, and/or additional identity or access credentials. The Federal Government is currently undertaking a number of initiatives aimed at better coordinating credentials, and transportation owners/operators should support these efforts.

Recommendation 17

Collaborate with the SCCs to develop a proposal for security threat assessments (STA) standards.

Lead Agency:	TSA
Supporting Agencies:	DHS/NPPD; other Federal agencies involved in vetting of surface transportation workers

Currently, there is not a standardized process for STAs conducted by the Federal Government. Work is needed to standardize business processes and infrastructure for STAs across the diverse populations vetted by Federal security and other government vetting agencies. Criteria should be developed to promote comparability and reciprocity of assessments across credentialing and screening programs in the surface transportation arena.

Recommendation 18

Incorporate formal and informal methods for surface transportation owners/operators, as well as SCCs that represent them, to provide direct input into setting surface transportation R&D priorities.

Lead Agency:	TSA
Supporting Agencies:	DHS/S&T; DOT; other Federal agencies involved in R&D of surface transportation security technologies

The Federal Government determines national priorities for security technology and identifies gaps between security needs and current technology based on assessments of threat and risk. The primary technology purchasers are private sector and SLTT governments operating surface transportation systems. Because Federal R&D efforts must encourage basic research and future technology innovation—a core requirement in public law and appropriations legislation—some R&D programs have focused more on theoretical technologies than on more near-term, real-world operational applications. Building on existing SCC and owner/operator input models would allow the private sector needs and priorities to be considered in the R&D process.

GAO Recommendation

Expand outreach to the mass transit and passenger rail industry in the planning and selection of related security technology research and development projects.⁸

⁸ U.S. Government Accountability Office, *Key Actions Have Been Taken to Enhance Mass Transit and Passenger Rail Security, but Opportunities Exist to Strengthen Federal Strategy and Programs*, GAO-09-678 (Washington D.C.: GAO, 2009), 61, <http://www.gao.gov/new.items/d09678.pdf>.

Recommendation 19

Develop a formal, recurring surface transportation security grant process for meeting with surface transportation SCCs, owners/operators, and SLTT governments; collecting and adjudicating recommendations; and making final decisions.

Lead Agency:	TSA
Supporting Agencies:	DHS/FEMA; other Federal agencies involved in transportation security grants

Implementation of this surface transportation security grants recommendation is under way. Recurring meetings and other feedback mechanisms are in use to align the priorities of security partners and the Federal Government. Greater attention is being given to improving consistency of meetings and other mechanisms (e.g., guidance workshops, conference calls, and After Action Conferences) to establish a repeatable, consistent process that also ensures management of SCC, owner/operator, and SLTT government expectations.

Recommendation 20

Review key policy issues and questions identified by the *Surface Transportation Security Priority Assessment* to address unresolved policy issues and provide solutions for resolving identified security gaps.

Lead Agency:	National Security Staff
Supporting Agencies:	DHS/TSA; DOT; other Federal agencies and departments involved in the implementation of the <i>Surface Transportation Security Priority Assessment</i> recommendations

Continue to identify key surface transportation security policy issues and questions that were not addressed previously through the consensus recommendation process, and discuss them with all levels of government and surface transportation owners/operators.

VI. IMPLEMENTATION

The designated lead agency for each recommendation will develop and manage an implementation plan. This plan will be developed in collaboration with the designated support agencies. Each recommendation will have a plan that, at a minimum, discusses the following elements:

- *Action Items* necessary to accomplish the recommendation
- *Timeline* to accomplish the recommendation
- *Milestones* to demonstrate progress toward accomplishing the recommendation
- *Performance measures* to demonstrate the effectiveness and value of the recommendations
- *Stakeholder engagement* process and methods

