Report on Transportation Security

FY 2020 and FY 2021 Report to Congress

April 10, 2023

Message from the Administrator

I am pleased to submit the "Report on Transportation Security" prepared by the Transportation Security Administration (TSA). This report combines multiple annual reporting requirements to streamline and improve the United States (U.S.) Department of Homeland Security's (DHS) processing and submission of the various reports on transportation security. They include:

- The Periodic Progress Report on the National Strategy for Transportation Security;
- The Report on Transportation Security;
- The Update on Enhanced Security Measures;
- The Report on the National Strategy for Public Transportation Security; and
- The Report on the National Strategy for Railroad Transportation Security.

Unless otherwise noted, this report summarizes the activities taken in fiscal years (FY) 2020 and 2021 by transportation systems owners and operators, as well as federal, state, local, tribal, and territorial government partners to enhance systems protection and resilience.

TSA collaborated with a wide range of partners to produce this report, which compiles accomplishments for the transportation sector. They include our Co-Sector Risk Management Agencies - the U.S. Department of Transportation (DOT) and the U.S. Coast Guard (USCG) - and other DHS entities with transportation sector security responsibilities such as U.S. Customs and Border Protection (CBP), the Cybersecurity and Infrastructure Security Agency (CISA) and the Countering Weapons of Mass Destruction Office (CWMD). TSA also worked with aviation and surface transportation industry stakeholders, international counterparts, and intelligence and law enforcement community professionals.

As required by law, this report is being provided to the following Members of Congress:

The Honorable Maria Cantwell
Chairwoman, Senate Committee on Commerce, Science, and Transportation

The Honorable Ted Cruz
Ranking Member, Senate Committee on Commerce, Science, and Transportation

The Honorable Gary C. Peters
Chairman, Senate Committee on Homeland Security and Governmental Affairs

The Honorable Rand Paul
Ranking Member, Senate Committee on Homeland Security and Governmental Affairs

The Honorable Bernie Sanders
Chairman, Senate Committee on Banking, Housing, and Urban Affairs

The Honorable Bill Cassidy, M.D.
Ranking Member, Senate Committee on Banking, Housing, and Urban Affairs

The Honorable Mark E. Green
Chairman, House Committee on Homeland Security

The Honorable Bennie G. Thompson
Ranking Member, House Committee on Homeland Security

The Honorable Sam Graves
Chairman, House Committee on Transportation and Infrastructure

The Honorable Rick Larsen
Ranking Member, House Committee on Transportation and Infrastructure

Inquiries relating to this report may be directed to me at (571) 227-2801 or TSA's Legislative
Affairs office at (571) 227–2717.

Sincerely,

David P. Pekoske
Administrator

Executive Summary

The COVID-19 pandemic impacted every aspect of operations throughout the United States and worldwide in 2020 and 2021, including domestic and international travel. Despite the challenges posed, TSA remained a leading agency throughout the course of the pandemic in maintaining the security of its operations. Through 2020 and 2021, in order to return to normal pre-Pandemic operations and safeguard the traveling public, TSA established, and participated in, a series of task forces and working groups. Notably, TSA stood up the Task Force on COVID-19 Resumption of Business Planning and helped lead the U.S. Framework for Airlines and Airports to Mitigate the Public Health Risks of COVID-19 to support an increase in travel volume and ensure the traditional aviation safety and security measures were not compromised.

Included in these traditional aviation safety and security measures are the Transportation Sector's three security goals as described in the National Strategy for Transportation Security:

Goal 1:	Manage risks to transportation systems from terrorist attacks and enhance system resilience
Goal 2:	Enhance effective domain awareness of transportation systems and threats
Goal 3:	Safeguard privacy, civil rights, and civil liberties; and the freedom of movement of people and commerce

These goals provide guidance to our stakeholders on how Sector Risk Management Agencies (SRMA) will achieve a secure and resilient transportation system. This report assesses the sector's progress toward achieving these goals and discusses key accomplishments.

Securing the transportation enterprise is a multi-department endeavor that requires close coordination. The Department of Homeland Security (DHS) and the Department of Transportation (DOT) are designated co-SRMAs for the Transportation Systems Sector.[1][2] TSA and the United States Coast Guard (USCG) are the delegated authorities for the Transportation Systems Sector for DHS, with USCG serving as the designated lead for the sector's maritime mode. Though TSA is responsible for the majority of the federal security activities described in this report, other agencies within DHS, also have transportation sector security responsibilities including U.S. Customs and Border Protection (CBP), the Cybersecurity and Infrastructure Security Agency (CISA), and the Countering Weapons of Mass Destruction Office (CWMD).

This report fulfills multiple annual reporting requirements and summarizes key accomplishments that took place in FY 2020 and 2021 (unless otherwise noted) by transportation systems owners and operators, and by federal, state, local, tribal, and territorial government partners to enhance system protection and resilience from terrorism. The report addresses modal-specific actions, as

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[1] Designated in Presidential Policy Directive-21, *Critical Infrastructure Security and Resilience.*
[2] National Defense Authorization Act for Fiscal Year 2021, Sec. 9002 of Pub. L. No. 116-283, 134 Stat. 4768 (2021).

well as intermodal issues related to the management of risks in the Nation's transportation system, both domestically and internationally.

The Transportation Systems Sector consists of a network of interdependent systems across three subsectors: aviation, maritime, and surface.

Aviation

Despite the COVID-19 pandemic and the temporary reduction in air travel, TSA screened approximately 324 million passengers through airport security checkpoints in calendar year 2020, and about 585.3 million passengers in calendar year 2021. These figures represent 39 and 71 percent respectively of the 824 million passengers screened in 2019. Current projections show that passenger volume will return to pre-pandemic levels and will increase in future years.

To continue to meet its security mission while ensuring the safety of its workforce, TSA implemented significant changes to reduce physical contact between Transportation Security Officers (TSOs) and passengers. Specifically, TSA accelerated deployment of technologies and acrylic barriers as a means of enhancing security and reducing touchpoints throughout the checkpoint. In addition, TSA implemented the President's Executive Order and related CDC Order by issuing security directives and emergency amendments to require mask-wearing in the public transportation sector, including at airports and while aboard aircraft. The TSA COVID-19 Resumption of Business Planning Task Force:

- Recommended several short-term solutions that provide layers of protection for the public and instill confidence (like social distancing and improving sanitization and cleaning standards at the checkpoint);
- Limited employee and passenger exposure through designing and procuring of acrylic shield barriers and developing and introducing touchless technologies at the checkpoint including stand-off detection technologies, enhanced AIT units with algorithm upgrades, and the rotation of and accelerated deployment of self-service Credential Authentication Technology (CAT) systems;
- Supported employees through the full use of TSA's authorities;
- Enhanced collaboration with interagency, international and industry partners such as contributing to the DHS-FAA led Runway to Recovery guidance to industry document and continual engagements with airlines/industry; and
- Analyzed impacts to current and future year budgets in an effort to accelerate social-distance screening through technology investments and implement measures to protect the safety of the TSA front-line workforce and traveling public.

In addition to physical safety, TSA used several programs and initiatives to retain and recruit new TSOs, despite lower passenger volumes, including:

- A rewards program called the Model Officer Recognition that provided monetary awards to more than 7,800 top performing TSOs;

- A career progression plan that provides training in advanced skills and a one-time pay increase for more than 300 select E-Band officers that help to retain and promote the best-of-the-best;
- Expanded training capacity and access by launching TSO new hire training at TSA Academy West adjacent to Harry Reid International Airport (LAS), which led to 500 new hires undergoing academy training;
- Service pay increases for more than 36,000 TSOs that rewards commitment to service and professional excellence; and
- Authorized TSO retention incentives at 67 airports, benefitting more than 6,000 employees nationwide.

As air travel patterns changed due to the pandemic, a new threat of unruly passengers evolved. To address this threat, TSA helped train nearly 1,500 flight crew members in Crew Member Self-Defense training and partnered with the FAA to rescind TSA PreCheck® eligibility for disruptive passengers.

Maritime

The Maritime Transportation Subsector, led by the USCG, developed tools, portals, and capabilities to share critical information more effectively. The USCG continues to work with security partners and stakeholders to pursue a risk-based security posture. Using the Area Maritime Security Training and Exercise Program, Federal Maritime Security Coordinators and their Area Maritime Security Committees test the effectiveness of their respective port-level Area Maritime Security Plans and support maritime security preparedness regimes through the engagement of federal, state, local, tribal, territorial government, and private sector stakeholders. The USCG also continued its collaborative work with the National Institute of Standards and Technology to finalize Cybersecurity Framework Profiles for Offshore and Passenger Vessel Operations.

Surface

The Surface Transportation Subsector deepened collaboration, coordination, and oversight of regulated entities to mitigate both physical and digital threats. TSA published the *Security Training Rule for Surface Transportation Employees* final rule in March 2020, requiring higher-risk passenger railroad carriers, freight railroad carriers, public transportation agencies (including rail mass transit and bus systems) and over-the-road bus companies to provide a TSA-approved formalized security training program to employees performing security-sensitive functions. TSA also conducted 114 pipeline critical facility security reviews, 45 pipeline corporate security reviews, 152 assessments of security enhancements with mass transit operators and 150 assessments of security enhancements with motor carriers.

The threat landscape changed significantly in 2021 with the ransomware attack on a US refined petroleum products pipeline company. TSA responded by issuing Security Directives (SDs) mandating that regulated parties, including critical pipeline owners and operators, implement several urgent cybersecurity measures. These directives included an initial SD issued in May

2021 and another in July 2021 that required owners and operators of TSA-designated critical pipelines to implement specific cybersecurity mitigation measures. TSA has since issued revisions to these SDs and has issued SDs and Information Circulars to address similar threats to freight railroads, mass transit and passenger rail, over-the-road buses, and other non-critical pipeline owners and operators. TSA developed these SDs and Information Circulars with extensive input from industry stakeholders and federal partners. Efforts continue through collaboration and coordination with surface transportation stakeholders to secure both information technology and operational technology as well as physical infrastructure.

2022 Annual Report on Transportation Security

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I.   Legislative Language

This Report on Transportation Security fulfills five annual reporting requirements, including an annual progress report on the 2020 National Strategy for Transportation Security (NSTS), a Report on Transportation Security, an update on enhanced security measures, a Report on the National Strategy for Public Transportation Security, and a Report on the National Strategy for Railroad Transportation Security. These reports have been combined to achieve efficiency and deliver a coordinated message to the President and Congress. See Appendix A for a full description of the statutory reporting requirements.

II.   Sector Description, Vision, and Mission

Securing the transportation enterprise is a multi-department endeavor that requires close coordination. The Transportation Systems Sector (TSS) consists of a network of interdependent systems across three subsectors: aviation, maritime, and surface. The Nation's critical infrastructure depends on the transportation systems sector, and in turn, the transportation systems depend on other sectors, such as energy, communications, information technology, chemical, and manufacturing.

TSA takes into account these interdependencies as an important dimension of the risk environment in its mission to protect transportation critical infrastructure and increase system resilience. A primary focus of the sector's risk management processes during this reporting period was to identify, assess, prioritize, and manage risks in order to enhance the resilience of the transportation systems.

This report describes the transportation system's progress in implementing the 2020 NSTS, including the transportation modal security plans. It describes progress in addressing terrorism risks, enhancing resilience, improving domain awareness, and protecting privacy, civil rights, and freedom of movement. For more information, see Appendix B in this report.

III. Sector Progress

The TSS continues to enhance security through policy, programs, and activities developed in collaboration with government and industry partners. These activities address risks related to terrorism and other physical and digital threats, enhancing resilience, improving domain awareness, and protecting privacy, civil rights, and freedom of movement. The NSTS defines goals, supporting objectives and activities, and performance measures for each subsector of transportation. This section assesses progress toward achieving these goals by documenting key accomplishments.

A.   Aviation Transportation Subsector

The Aviation Transportation Subsector consists of commercial aviation, commercial airports, general aviation, and air cargo. The owners and operators, state and local authorities, and the Federal Government work collaboratively to develop measurable security activities, plans, and objectives needed to achieve threat deterrence, detection, and resilience goals.

In a typical year, the U.S. aviation subsector accommodates approximately 900 million domestic and international aviation passengers through approximately 430 federalized airports. This equates to the screening of 2.3 million passengers, 1.4 million checked bags, and 5.5 million carry-on bags each day. TSA screened approximately 324 million passengers in 2020 and 585.3 million passengers in 2021. These figures represent 39 and 71 percent respectively of the approximately 824 million passengers screened in 2019. Despite the reduced transit volume, and as volumes increased through 2021, TSA officers faced challenging screening environments because of the threat of COVID-19. In order to mitigate the risks to TSA's workforce, airline and airport personnel, and the traveling public, TSA implemented significant changes designed specifically to reduce physical contact. TSA rapidly deployed acrylic barriers and technologies to enhance security and reduce touchpoints throughout checkpoints.

Additionally, TSA has strengthened partnerships across the spectrum—from private industry, to foreign partners, to advisory committees, to academia, to tribal and territorial governments, state and local governments, and federal partners—to increase security and adapt to the new travel environment, while maximizing the customer experience and minimizing any negative impacts on travelers and commerce.

As mentioned in Appendix B, Table 1, these efforts are a testament to the coordination and collaboration between TSA and its industry partners.

Other accomplishments included:

- Upgraded 87 Advanced Imaging Technology (AIT) machines with improved security effectiveness and reduced the number of false alarms.
- The TSA Action Plan Program resulted in increased regulatory compliance by stakeholders. This was accomplished by collaboratively identifying solutions for areas of non-compliance. This resulted in stakeholders investing $12 million in security improvements instead of receiving $8 million in penalties under the normal compliance process.
- Deployed an additional 1,520 Credential Authentication Technology (CAT) units and 320 CT X-ray scanners, which significantly improve security while reducing physical contact and replacing advanced technology (AT) X-ray machines. CT machines provide additional detection capabilities compared to AT X-rays. CT meets the Advanced Property Screening System Detection Standard.
- TSA Secure Flight pre-screened over 565 million airline reservations in FY 2021.
- Prevented 5,456 firearms, a record number, and the majority of which were loaded (84 percent), from being carried into airplane passenger cabins or the secure area of airports.

- Helped screen and vet over 70,000 Afghans as part of Operation Allies Welcome.

In addition, TSA enrolled seven new airlines and 1.8 million travelers in the TSA PreCheck® expedited screening program, bringing the total number of Known Traveler Number holders to over 27 million. This exceeded the Congressionally mandated milestone of 10 million active TSA PreCheck® members in March 2020. This program provides more efficient screening and a better checkpoint experience, while also maintaining the required level of security for passengers whose backgrounds are unknown.

B.   Maritime Transportation Subsector

The U.S. Marine Transportation System (MTS) is a vital part of the national economy, playing a key role in the global supply chain. It consists of 25,000 miles of navigable channels, 250 locks, and over 3,500 marine terminals at 360 ports. Waterborne cargo and associated activities contribute more than $500 billion annually to the U.S. Gross Domestic Product and sustain more than 10 million American jobs.[3] More than 99 percent of the volume of overseas trade enters or leaves the United States by ship.[4] By their nature, waterways are generally less restricted and are freely accessible to transit without many of the mechanisms for detection and investigation often available in the air and land domains. Maritime security vulnerabilities and the potential consequences from a variety of hazards, including hurricanes, terrorist attacks, and cyber threats continue to be significant.

USCG and its partners maintain a suite of performance measures to monitor progress in meeting *Maritime Transportation Security Act* (MTSA) performance goals and objectives. The following reports provide further information on key maritime security-related performance and metrics:

- DHS Annual Performance Report for Fiscal Years 2019-2021
- CBP Border Security Report for Fiscal Years 2020 and FY 2021
- DHS FY 2020 and 2021 Performance & Accountability Reports

As outlined in Appendix B, Table 2, USCG, TSA and their partners provide a progress report of the Maritime Modal Sector Plan outlined in the 2020 NSTS over the course of the 2020 and 2021 Fiscal Years.

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[3] Maritime Administration, *Marine Transportation System Important Facts.* Available at https://origin-www.marad.dot.gov/ports/marine-transportation-system-mts/ Accessed January 8, 2021.
[4] Ibid.

C.   Surface Transportation Subsector

The Surface Transportation Subsector consists of four transportation modes: mass transit and passenger rail, freight rail, highway and motor carrier, and pipeline. The surface transportation subsector's primary security focus uses a risk-based approach to protect critical assets and systems that is centered on collaboration, coordination, and oversight.

The Surface Based Risk Security Strategy is a strategic framework for security enhancement that identifies risk and continues to enhance security through the implementation of mitigation activities among the stakeholder's most vital areas of operations. The subsector's ability to analyze gaps identified by a vulnerability assessment process and apply practical mitigating activities leads to a continuous cycle of improvement through activities associated with threat detection, deterrence, and resilience goals.

To remain effective in a changing surface transportation threat environment, the subsector continually engages in research and development by planning, developing, and executing assessment processes to determine innovative and emerging technology suitability, effectiveness, and feasibility in surface transportation venues. It also coordinates and manages test beds with non-aviation stakeholders and technology end-users to assess promising technology solutions and other tools to drive mission success, address current and emerging threats, close capability gaps, and reduce risk of serious disruptions to surface transportation stakeholders. Modal-specific tests beds are discussed in Appendix B, Tables 4, 5, 6, and 7.

Highlights from FY 2020 and FY 2021 for policies and regulations that affected the surface subsectors include:
- TSA published a final rule on Security Training for Surface Transportation Employees. See 85 FR 16456 (March 23, 2020). This rulemaking requires owner/operators of higher-risk freight railroad carriers, public transportation agencies (including rail mass transit and bus systems), passenger railroad carriers, and over-the-road bus companies to provide TSA-approved security training to employees performing security-sensitive functions.
- Conducted multiple Intermodal Security Exercise Training Program (I-STEP) Table-Top Exercises (TTX) in 2021 focused on Freight Rail and Highway and Motor Carrier modes.
- Developed and issued TSA Security Directive 1582-21-01, Enhancing Rail Transit Cybersecurity.
- Developed and issued TSA Information Circulars on Enhancing Cybersecurity in Surface Transportation (IC-Surface-2021-01, IC-Surface-2022-01 and IC-Surface-2022-02).
- Developed and issued Pipeline Security Directive (SD)-2021-02B to address hazardous liquid and natural gas pipeline or liquefied natural gas facility owner/operator mitigation actions and contingency planning and testing.

D. Intermodal

The Intermodal Security Subsector covers the transportation elements of the global supply chain and the delivery of goods from origin to destination by multi-modal postal and parcel shipping services. The global supply chain consists of a dense network of routes and carriers operating efficiently to provide time-sensitive deliveries. Threats to intermodal transportation links of the supply chain are the same as those for the individual modes serving the supply chain. The threats also include the potential delivery of explosives, dangerous chemicals, or biological agents to specific targets. While the direct consequences of attacks on intermodal transportation systems may be limited, the indirect costs of attack-related disruptions could have significant and lasting effects, particularly where shipping options are limited.

As outlined in Appendix B, Table 8, TSA and its partner agencies provide a progress report of the Intermodal Sector Plan outlined in the 2020 NSTS over the course of FY 2020 and FY 2021.

Highlights from FY 2020 to FY 2021 include USCG resumption of port security assessments as COVID-19 travel restrictions eased, and an increase in compliance rate to nearly 100 percent with U.S. trade laws from trading partners.

Appendix A: Public Transportation Security Annual Report 6 U.S.C. § 1141

This appendix addresses the annual reporting requirements of 6 U.S.C. § 1141, covering the implementation of the National Strategy for Public Transportation Security, as defined by Title 6-Domestic Security, Chapter 4-Transportation Security, Subchapter III-Public Transportation Security, Sections 1131 through 1139.

1) **Description of the implementation of the provisions of Title XIV of the 9/11 Act (title)**

   §1131 Definitions

   Status: No action required.

   §1132. Findings

   Status: No action required.

   §1133. National Strategy for Public Transportation Security

   Status: Implemented through the 2018 National Strategy for Transportation Security, Appendix C, Surface Security Plan.

   §1134. Security assessments and plans

   Status: See 3) a) and 3) c) below. Additionally, TSA published an Advance Notice of Proposed Rulemaking on Surface Transportation Vulnerability Assessments and Security Plans. *See* 81 FR 91401 (December 16, 2016). The rulemaking is now listed as a long-term action within the Fall 2020 Unified Agenda.

   §1135. Public transportation security assistance

   Status: See 2) below.

   §1136. Security exercises

   Status: TSA's Intermodal Security Training and Exercise Program (I-STEP), a security exercise program designed to reduce risks to critical transportation infrastructure, collaborated with transportation operators and security partners to build and sustain security preparedness to protect the traveling public, enhance national resilience, and identify capability gaps and needed resources. However, the severe impact of COVID-19 resulted in a drastic decline in the number of I-STEPS that occurred during the previous year. In FY 2020 and FY 2021, I-STEP collaborated with security partners to produce 22 transportation security exercises supporting all modes of transportation. Of these, 3 were in the public transportation sector, specifically. These numbers are a marked reduction from the number of I-STEPS completed in 2019. In 2019, I-STEP supported 31 transportation security exercise supporting all modes of transportation, with 14 of them in the public transportation sector.

§1137. Public transportation security training program

Status: TSA published a regulation on Security Training for Surface Transportation Employees. *See* 85 FR 16456 (Mar. 23, 2020).

§1138. Public transportation research and development (R&D)

Status: To ensure market technology stimulation and maturation, TSA plans, develops, and executes assessment processes to determine innovative and emerging technology suitability, effectiveness, and feasibility in public areas and surface transportation venues. This includes laboratory-based evaluations and field assessments in areas such as anomaly explosives detection, intrusion detection, detection at-range, remote screening, and blast mitigation. TSA also coordinates chemical-biological and other weapons of mass destruction technology-related activities with the DHS Science and Technology Directorate (DHS S&T), and other federal departments and agencies. TSA coordinates and manages mass transit test beds with stakeholders and technology end-users to assess promising technology solutions and other tools to drive mission success, address current and emerging threats, close capability gaps, and reduce risk of serious disruptions to public area and transportation stakeholders. The data gathered from these test beds and the technologies used within them are a major factor in driving priorities in coordination with end-users. TSA collects and analyzes operational needs, technology requirements, and security concerns in collaboration with industry through the formally chartered R&D Working Group and in partnership with DHS S&T. This group serves as the primary mechanism for gathering R&D input, which comes from transportation stakeholders such as the U.S. Department of Transportation, DHS S&T, the U.S. Department of Defense, and state and local representatives. TSA also establishes Integrated Project Teams, such as for Detection at-Range, to facilitate increased formal collaboration between key government organizations to enhance and mature standoff detection technologies.

Examples of large-scale projects include:
- Mass Transit Test Beds: Amtrak, Los Angeles Metro (CA), New Jersey Transit (NJ), Bay Area Rapid Transit (CA), Washington Metropolitan Area Transit Authority (D.C.), Port Authority of New York and New Jersey (NYC), New York Police Department (NYC), Chicago Metra (IL), Metropolitan Atlanta Rapid Transit Authority (GA), Metropolitan Transportation Authority (MTA), New York City Transit (NYCT) subway, and Metro-North Railroad, Long Island Railroad (LIRR).
- Freight Rail Test Beds: Tennessee River Bridge (AL), Plattsmouth Bridge (NE), Hwy 1&9 (NJ), and Northern Branch Rail Corridor (NJ)
- Pipeline Test Beds: Yorktown Junction (VA), Compton Roads (VA), and a representative test fixture at the Johns Hopkins Applied Physics Laboratory (MD)

Examples of small-scale projects include:
- Special Studies: Blast Mitigation and Bus Studies
- Representative National Special Security Events Support

§1139. Information sharing

Status: The Public Transit Information Sharing and Analysis Center has provided the government and the commercial transportation industry with alerts, bulletins, information, and analyses concerning terrorist movements, operations, threats, and, on rare occasions, reports on suspicious sightings of possible terrorist activity. In turn, such information is jointly shared with TSA and an international association of over 1,500 public and private member organizations and stakeholders. The Public Transit Information Sharing and Analysis Center functions as a sector-specific platform, providing critical information and intelligence requirements covering threats, incidents, and vulnerabilities facing the transportation sector.

2) **Amount of funds appropriated to carry out the provisions of this title that have not been expended or obligated.**

The Transit Security Grant Program (TSGP) is one of the grant programs appropriated to the Federal Emergency Management Agency (FEMA) that directly support transportation infrastructure security activities. TSGP is authorized by Section 1406 of the *Implementing Recommendations of the 9/11 Commission Act of 2007* (Pub. L. No. 110-53) (6 U.S.C. § 1135) and the annual Department of Homeland Security Appropriations Act. **Table 1** shows TSGP funding levels through FY 2020. As shown in **Table 2**, TSGP funding through FY 2020 has been fully obligated to higher-risk public transportation systems.

Table 1:

TSGP Totals		
2006-2021	$342M	TSGP funds awarded to Operational Activities
2006-2021	$607M	TSGP funds awarded to Operational Deterrence
2006-2021	$1.4B	TSGP funds awarded to Capital Projects

Note: The balance amounts are current as of 10/31/20. The period of performance for these awards is 36 months. In this context, it is important to note that transit systems often do not drawdown funds until a project is complete.

Table 2:

Year of appropriation	Funds appropriated & awarded	Balance (funds remaining or open obligations)
FY 2018	$88.0M	*
FY 2019	$88.0M	*
FY 2020	$88.0M	*
FY 2021	$88.0M	*

Note: The balance amounts are current as of 10/31/20. The period of performance for these awards is 36 months. In this context, it is important to note that transit systems often do not drawdown funds until a project is complete.

The 2020 and 2021 Enacted Surface Appropriation funding appropriated to TSA for surface transportation-related security activities is reflected in **Table 3**:

Table 3:

2020 Surface Appropriation:	
Cross Modal Surface Activities	$24.370M

Inspectors	$38.759M
VIPR Teams	$58.800M
Intermodal Testing	$8.000M
Other	$11.032M
Total	**$140.961M**
2021 Surface Appropriation:	
Cross Modal Surface Activities	$27.480M
Inspectors	$36.537M
VIPR Teams	$62.209M
Intermodal Testing	$8.000M
Other	$7.977M
Total	**$142.203M**

3) **State of public transportation security in the United States, including:**

a) **The status of security assessments;**

The voluntary Baseline Assessment for Security Enhancement (BASE) program was used to review security assessments conducted by public transportation agencies. Between FY 2016 and FY 2020, 376 BASE reviews were conducted, including 28 on agencies that are in the high-risk category. During that time, 28 of 45 agencies had a BASE review performed.

b) **Progress being made developing prioritized lists of security improvements to secure public transportation facilities and passengers;**

TSA and FEMA developed funding priorities for the TSGP and have reviewed those priorities, adjusting as necessary. Agencies that submit applications that are not aligned with the funding priorities are not considered for funding. The prioritized funding has resulted in security improvements as projects are completed.

The TSGP risk model considers threat, vulnerability, and consequence to highly populated urban areas and the specific transit systems that service them. More than 119 MTPR systems from 59 regions are run through the TSGP risk model on an annual basis to derive a unique risk score for each system. MTPR systems in the same region have their scores added together to arrive at a regional risk score, then the regional risk scores are sorted from highest to lowest and plotted on a line graph. There is a natural "break" in this risk curve after the top eight regions. Those eight regions account for approximately 95 percent of the total risk to MTPR systems.

c) **Progress made by agencies developing security plans and how those plans differ from the security assessments;**

The BASE program assesses public transportation agencies against multiple security-related categories identified by the public transportation community as fundamental for a sound security program, including the presence and quality of a security plan and assessment. The results of the BASE assessments indicate gaps or shortfalls in existing plans and allow the agencies to adjust and strengthen their plans to close the gaps. Unfortunately, in FY 2020, due to the severe impact of COVID-19, only one BASE

assessment could be completed on a higher-risk agency, while in 2021 TSA was able to perform 12. A random sample of an equal number of large- and small-scale projects is currently underway.

4) **A random sample of an equal number of large- and small-scale projects currently underway.**

Ongoing projects vary greatly both in type and size. Projects range from lower-dollar amount training, exercise, and public awareness projects, to operational deterrence projects to multi-million-dollar infrastructure capital protection projects for stations, bridges, and tunnels.

Examples of large-scale projects currently underway include:
- Securing underground/underwater vulnerable points of entry at top transit asset list (TTAL) assets
- Perimeter Security at a large, multi-modal TTAL asset
- Physical barriers and electronic security measures at a bridge critical to mass transit operations
- Portable barrier systems at TTAL assets

Examples of small-scale projects currently underway include:
- Sustainment of K-9 teams, mobile screening teams, anti-terrorism teams, and directed/surge patrols on overtime
- *See Something, Say Something™* campaign, which was originally created with TSGP funds, and other public awareness campaign materials and resources
- Closed-circuit television and access control at transit stations and platforms

Appendix B: Sector Progress Reports

Table 1 provides a progress report of the Aviation Modal Sector Plan outlined in the 2020 NSTS over the course of the 2020 and 2021 fiscal years.

Table 1: Aviation Subsector Progress Assessment

Goal 1: Manage risks to the Aviation Transportation Subsector from terrorist attacks and enhance system resilience
Objective 1: Improve physical and cybersecurity of domestic aviation critical infrastructure
Activity 1: Increase the number of aviation workers requiring a fingerprint-based criminal history records check and increase the use of Rap Back for recurrent criminal vetting of workers requiring unescorted access to non-public areas of airports
Key Accomplishment: Reached a total of 241 out of 313 airports voluntarily participating as required by the National Amendment (NA) to mandate Rap Back service, which came into effect March 29, 2022.[5]
Activity 2: Assess cybersecurity vulnerabilities of commercial aircraft and airports survey
Key Accomplishment: Although TSA has not yet conducted any aircraft assessments, TSA conducted three separate trainings in 2021 for airports regarding cyber vulnerabilities that support cyber-risk-reduction and resiliency efforts within the aviation ecosystem.
Activity 3: Assess Unmanned Aircraft System (UAS) risk in the environs of commercial airports
Key Accomplishment: UAS JVA's are conducted jointly by airport authorities and a TSA Assessment team to identify vulnerabilities and threats posed by nefarious and errant UAS operators and provide recommendations to mitigate those vulnerabilities. TSA uses the JVAs to refine Tactical Response Plans, define site-specific Operational-Plans, build response capabilities at airports, and prepare justifications for mitigation measures and technologies procurement.   In 2021, TSA conducted 13 UAS specific assessments at Core 30 airports. These assessments yielded recommendations to mitigate UAS disruption to airport operations and provided FSDs information on UAS risk within their AOR.

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[5] Among the convictions included under the National Amendment include Interfering with Air Navigation, Sedition, Treason, Violence at an Airport, and Aircraft Piracy. Rap Back generates electronic notifications whenever applicants, employees, or volunteers, engage in any criminal activity where fingerprints are taken and submitted to the Next Generation Identification (NGI) System. Agencies will also be notified if any previously unreported criminal activity is updated.

Objective 2: Improve capabilities to prevent, protect, mitigate, respond to, and recover from terrorist attacks throughout the aviation community

Activity 1: Strengthen technical skill of frontline employees to identify, deter, prevent, and respond to threats by expanding training and development programs and security awareness messaging describing common threat indicators

Key Accomplishments:
- Covert testing of TSA checkpoint screening commenced in August 2019 with five different scenarios. From October 2019 until March 2020, over 930 covert tests were successfully conducted.
- Following a testing pause due to the pandemic, testing resumed in the fourth quarter of FY 2020 with four different scenarios. More than 240 covert tests were conducted in the fourth quarter of FY 2020 during the pandemic.
- Vulnerability information was fed into TSA risk-management processes including the Security Vulnerability Management Process and the Risk and Trade Space Portfolio Analysis.
- TSA exceeded its target goal of 4, with 6 scenarios tested, including two new scenarios. Over 1250 tests were conducted in FY 2021.
- New information gained includes performance differences between newly deployed screening systems and legacy systems, and failure modes for pat downs.
- Specific trend and vulnerability information is available at the SECRET level.

Objective 3: Enhance international aviation security risk management strategies

Activity 1: Conduct outreach to facilitate the use of international best practices and procedures

Key Accomplishments:
- TSA partnered with 100 percent of last point of departure airports to improve security by addressing identified vulnerabilities and gaps.
- TSA has established interagency agreements to provide aviation security capacity development and technology assistance aimed at improving aviation security in U.S. Department of State prioritized locations in each region of the globe.
- TSA conducted continuous global coordination and assistance by actively engaging international counterparts. Engagements such as capacity development, mentoring, and both in person and virtual support activities ensured consistent implementation of international aviation security standards aviation measures and TSA's aviation security policies and initiatives for U.S.-bound operations. The lifting of recent travel restrictions has allowed TSA to resume critical in-person engagements with foreign partners.

Activity 2: Assess compliance with security measures required for service to the United States

Key Accomplishment: The TSA Compliance Directorate's Foreign Airport Assessment Program completed 48 percent of its planned work plan. The majority of the visits occurred in the Western Hemisphere area of operations, and included several joint assessments with inspectors of the Colombia Civil Aviation Authority

Activity 3: Scan international inbound air cargo shipments entering the U.S. to detect radiological or nuclear threats

Key Accomplishments:
- CBP continues to work with CWMD and the U.S. Postal Service to streamline their operations at up to three airport locations. The reconfigurations will also include deployment of remote operations equipment to enhance operational efficiencies for CBP.
- CWMD deployed and commissioned Radiation Portal Monitor (RPM) technology at two preclearance locations in FY 2020, including the deployment of three RPMs at Nassau Preclearance in December 2019, and one at Toronto Preclearance in December 2019.

Objective 4: Increase security technology capability to respond to known and emerging threats

Activity 1: Leveraging TSA work to harmonize standards internationally, and improve aviation industry stakeholder participation in the research and development process for threat detection and screening capabilities

Key Accomplishments:
- In cooperation with the European Civil Aviation Conference, TSA aligned testing methodologies for explosives trace detection, checkpoint/checked baggage Explosives Detection Systems (EDS) and Advanced Imaging Technology (AIT).
- TSA updated comparative analyses of TSA/EU detection requirements for explosives trace detection, checkpoint/checked baggage EDS, and AIT.
- TSA facilitated multiple working sessions with European Civil Aviation Conference study groups to align testing protocols, quality control, configuration management, and statistical confidence measurements.
- TSA signed Joint Declarations of Intent with the Netherlands and Germany committing to working toward achieving harmonization of screening technology detection standards and related requirements.

Goal 2: Enhance effective aviation domain awareness of transportation systems and threats

Objective 1: Improve quality in the sharing of intelligence information and products for government, industry, and public awareness

Activity 1: Enhance the quality and applicability of intelligence sharing with security partners

Key Accomplishments:
- TSA Feedback and Evaluation increased survey participation by 345 stakeholders between 2019 and 2020.
- TSA surpassed its expected target in FY 2021 by two percent.
- In support of optimal global and domestic industry security decision making, ADIAC delivered sustained outreach with its daily unclassified WEBEX briefings that incorporated TSA briefs on emerging threats and recent finished intelligence assessments. Several more urgent FY 2020-2021 classified threat streams were briefed at TSA headquarters and the constant sharing of classified threat products via HSDN and alerts via secure STE phone calls supported strong industry aviation threat awareness. The continued ADIAC membership growth over FY 2020 (+50 percent) and FY 2021 (+26 percent)-with the addition of 12

agencies and 10 industry organizations since 2019-demonstrated ADIAC's value to industry stakeholders and agency partners, making ADIAC a material example of TSA's commitment to partnering and sharing.

Goal 3: Safeguard privacy, civil rights, civil liberties, and the freedom of movement of people and commerce

Objective 1: Apply risk-based security approach to supply chain and passengers

Activity 1: Resolve security risks associated with high-risk cargo identified by the Air Cargo Advance Screening program, by screening all inbound air cargo shipments prior to loading onto aircraft destined for the United States

Key Accomplishments:
- Conducted research on international inbound shipments determined to have an increased security risk and resolved potential security risks through vetting of data elements provided by industry representatives.
- TSA used Referral for Screening information to determine screening compliance with appropriate security program requirements.

Activity 2: Provide expedited aviation security screening for trusted travelers

Key Accomplishments:
- In March 2020, the Congressionally mandated milestone of 10 million active TSA PreCheck® members was attained more than 6 months ahead of required timeframe.
- Implemented Congressional requirement that only Known Traveler Number holders, and low-risk passengers as specified in the TSA Modernization Act, receive TSA PreCheck® screening.
- Maintained TSA PreCheck® enrollment operations throughout pandemic and conducted over 95 percent of renewals online.
- In FY 2020, 22 percent of daily passengers received expedited screening based on assessed low risk and in FY 2021, 19 percent of daily passengers received expedited screening based on assessed low risk.[6]
- TSA lowered the price for TSA PreCheck® online renewals from $85 to $70 in September 2021. Renewing TSA PreCheck® is also quick and easy, with 95 percent of individuals renewing online.
- Individuals can now enroll in TSA PreCheck® using an additional gender marker option which better serves non-binary and gender non-conforming Americans. Applicants are also able to select their gender based on self-attestation, regardless of the sex assigned at birth.
- TSA partnered with the Federal Aviation Administration (FAA) to deny TSA PreCheck® screening to individuals who the FAA has identified as having allegedly assaulted, threatened, or interfered with crewmembers or other individuals on an aircraft.
- The TSA PreCheck® Application Program hit the milestone of 13M active Known Traveler Number holders in August 2022. This is a significant increase over FY 2021, when there were

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[6] In 2022 to date (Q1-Q3): 23 percent of daily passengers received expedited screening based on assessed low risk.

10.8 million active Known Traveler Number holders. In total, over 29 million individuals are eligible to receive TSA PreCheck® screening as of Q3 2022.

- At the end of FY 2021, over 26 million individuals were eligible to receive TSA PreCheck screening.

Table 2: Maritime Progress Assessment

Goal 1: Manage risks to transportation systems from terrorist attack and enhance system resilience
Objective 1: Use risk-based security planning and operations to reduce the terrorism risk to the Marine Transportation System
Activity 1: Improve compliance at MTSA-regulated facilities through risk-based adjustments of enforcement operations tempo
Key Accomplishment: Compliance rate increased by one percent, which although seemingly small it signifies a decrease in offenses.
Activity 2: Improve interoperability of federal and state, local, tribal, and territorial (SLTT) response teams in Maritime and Security Response Operations (MSRO)
Key Accomplishment: FY 2021 MSRO performance efficiency exceeded target goals by 10 percent. This was achieved by successful execution of quarterly RBMSRO tactical activity plans, which help field units effectively allocate resources and perform optimal risk-reducing MSRO activities. Resumption of in-person training and outreach in FY 2022 Q2 are expected to result in continued performance which exceeds target.
Activity 3: Employ Maritime Security Risk Analysis Model (MSRAM)[7] and other risk assessments and analysis tools to refine the estimates of MSRO activities' risk-reduction benefits, and use these estimates to inform the execution of MSRO activities in U.S. ports
Key Accomplishment: To measure and report outcomes of its Port, Waterway, and Coastal Security mission, the USCG used a risk-based proxy metric. The Port, Waterway, and Coastal Security performance model is designed to estimate USCG activity effectiveness against an assessment of maritime terrorism risk and is annually refined to ensure the most accurate portrayal of performance. Due to the steady state nature of the program, no specific programmatic accomplishments to report. Efficiency increased by 5 percent.

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[7] MSRAM is a process and model that supports the USCG's mission to understand and mitigate the risk of terrorist attacks on targets in U.S. ports and waterways.

Activity 4: Identify and assess high-risk inbound cargo
Key Accomplishment: Worked to secure and facilitate imports arriving in the United States, accommodating the increasing volume and complexities of international trade. With the Container Security Initiative, Customs-Trade Partnership Against Terrorism, and the Automated Commercial Environment, CBP has a sturdy base of partnerships and technology to safeguard the American public and promote legitimate international commerce.
Objective 2: Reduce security vulnerabilities and improve preparedness throughout the Marine Transportation System
Activity 1: Assess International Ship and Port Security (ISPS) Code implementation in foreign ports to receive ships destined for the United States
Key Accomplishment: IPS Program resumed assessments as pandemic travel restrictions ended.
Goal 2: Enhance effective domain awareness of MTS and threats
Objective 1: Improve the security, resilience, and regulatory (federal, state, local, tribal, and territorial) information sharing process throughout the Marine Transportation System community
Activity 1: Enhance resilience of cyber systems through implementation of the National Cyber Strategy Implementation Plan, exercises, guidance, assessments, and expansion of cyber intrusion detection and remediation technology
Key Accomplishment: Enclosure 5 of NVIC 09-02 will further implement Activity 1. Under NVIC 09-02 Guidelines for the Area Maritime Security Committees and Area Maritime Security Plans Required for U.S. ports, cyber is assessed, mitigation strategies are included, job aid to assist is provided. Check Sheets used to validate.
Activity 2: Participate in and materially support the development of a national Maritime Domain Awareness tool as defined in the Maritime SAFE Act
Key Accomplishment: No information provided
Objective 2: Improve Maritime Transportation System stakeholder participation in the risk management process for security and resilience prioritization and programming
Activity 2: Improve effectiveness of port exercise programs by designing exercise objectives and events based on analysis of MSRAM risk data
Key Accomplishments: • The Area Maritime Security Assessment factors in MSRAM data. Each AMSP plan will include an updated assessment based on that data. • The 43 Area Maritime Security Committees were in compliance with the Area Maritime Security Training and Exercise program.

Goal 3: Safeguard privacy, civil rights, civil liberties, and the freedom of movement of people and commerce

Objective 1: Collaborate with international partners to increase the reliability of the global supply chain

Activity 1: Apply risk segmentation methods to evaluate cargo for expeditious clearance

Key Accomplishment: CBP works with the trade community through voluntary public-private partnership programs, wherein some members of the trade community adopt tighter security measures throughout their international supply chain and in return are afforded benefits. This includes a variety of trade actors, such as importers, carriers, brokers, consolidators/third party logistic providers, marine port authority and terminal operators, and foreign manufacturers.

Table 3: Mass Transit and Passenger Rail (MTPR) Progress Assessment

Goal 1: Manage risks to transportation systems from terrorist attacks and enhance system resilience

Objective 1: Security Planning: Reduce the risks associated with a terrorist attack on MTPR systems through security plans that address cybersecurity and critical infrastructure protection, and operational practices (to detect and deter)

Activity 1: Develop, review, and update security plans based on available information

Key Accomplishment: Continued to conduct BASE evaluations within the high-risk mass transit and passenger rail sector (like those with at least 60,000 daily unlinked passenger trips) as well as on some systems which are not high-risk (that is, less daily passenger travel volumes) to review established written security programs and emergency management plans. In FY 2020, conducted 44 mass transit and passenger rail assessments overall. The result of the BASE evaluations conducted in FY 2020 demonstrate that mass transit and passenger rail agencies have reviewed established written security programs and emergency management plans and deem them an essential security component within their agency.

In FY 2021, TSA conducted 12 BASE on high-risk agencies.[8] The average operator score for this performance measure was 74.19 percent.

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[8] Further description of the BASE assessment can be found here.

Activity 2: Develop a comprehensive cybersecurity strategy

Key Accomplishment: TSA, in coordination with industry, reviewed and updated the BASE cybersecurity question set to ensure alignment with the National Institute of Standards and Technology (NIST) Cybersecurity Framework. As a result, a comprehensive cybersecurity question set was developed to align with the Framework Functions of Identify, Protect, Detect, Respond, and Recover.

FY 2021 accomplishments include:
- Developed and issued TSA Security Directive 1582-21-01, Enhancing Rail Transit Cybersecurity.
- Developed and issued TSA Information Circulars on Enhancing Cybersecurity in Surface Transportation (IC-Surface-2021-01, IC-Surface-2022-01 and IC-Surface-2022-02).

Objective 2: Security Training: Conduct training of employees to identify, prevent, respond, and recover from a terrorist attack

Activity 1: Improve the current state of the Nation's most critical MTPR systems security training programs through the incorporation of best practices and lessons learned into existing training plans

Key Accomplishments:
- TSA published a final rule on Security Training for Surface Transportation Employees. See 85 FR 16456 (March 23, 2020). This rulemaking requires owner/operators of higher-risk freight railroad carriers, public transportation agencies (including rail mass transit and bus systems), passenger railroad carriers, and over-the-road bus companies to provide TSA-approved security training to employees performing security-sensitive functions. The training curriculum must teach employees how to observe, assess, and respond to terrorist-related threats and/or incidents.
- Mitigated current threats and vulnerabilities using Risk Mitigation Activities for Surface Transportation (RMAST), which typically include TSA Transportation Security Inspectors - Surface (TSI-S) discussing security awareness issues with stakeholders and personnel. Throughout FY 2020, TSA facilitated security awareness training for over 4,000 MTPR front line employees.
- TSA scheduled the final rule to take effect on June 22, 2020, with the deadline for submitting training programs set for September 20, 2020. To date, TSA has received 47 of 48 anticipated security training programs from higher-risk MTPR entities. TSA has approved 43 (91 percent) of these programs, with four security training programs still under review.

Objective 3: Security Exercises: Conduct exercises employing threat scenarios to evaluate and identify opportunities to improve security preparedness and resiliency

Activity 1: MTPR systems participate in exercises to evaluate the preparedness for, response to, and recovery from physical and cybersecurity incidents

Key Accomplishments:

- Two I-STEP multimodal exercises with mass transit and passenger rail participants were completed. An I-STEP Jacksonville Regional Intermodal Security exercise conducted on Feb 20, 2020, included Amtrak participants and included a mass transit and passenger rail incident in the exercise scenario. The I-STEP exercises resulted in improved coordination between the transit agency and local emergency responders, and the identification of best practices.
- Completed one Exercise Information System (EXIS) activity in FY 2020. EXIS is a web-based software application that guides government and industry users through the exercise planning process and provides resources to design, document, and evaluate security exercises for all transportation modes. EXIS is a critical piece of I-STEP.
- Additionally, TSA facilitated a COVID-19 workshop for multiple modal stakeholders to leverage lessons learned in responding and operating within the COVID-19 environment.
- The purpose of the I-STEP Jacksonville Regional Intermodal Security Exercise was to introduce participants to federal, regional, state, local and private sector counterterrorism resources and capabilities. It also allowed participants to assess prevention, protection, and response-related security plans, policies, and procedures in the event of a multimodal security threat in the Jacksonville area.
- Conducted an I-STEP Tabletop Exercise (TTX) in Washington, DC ahead of the 2021 Presidential Inauguration with transit agencies from the National Capital Region (NCR). This TTX was conducted in November 2020.
- Conducted in-person I-STEP TTX in Morgan City, LA with Maritime, Freight Rail and local USCG and Law Enforcement participants. The TTX was conducted on June 10, 2021.
- Conducted a multimodal I-STEP TTX in Atlanta, GA with mass transit, school bus operators and the airport. This TTX was conducted in July 2021.
- Conducted one Cybersecurity 5N5 Workshop in FY 2021 with transit agencies participating (Los Angeles, CA) in July 2021.
- Completed one Exercise Information System (EXIS) activity in FY 2021 (Tampa, FL HART system).

Goal 2: Enhance effective domain awareness of transportation systems and threats

Objective 1: Intelligence and Information Sharing: Maintain and enhance mechanisms for information and intelligence sharing between the MTPR industry and government

Activity 1: Provide timely and relevant information and intelligence to enhance industry's domain awareness

Key Accomplishments:
- Provided 84 intelligence and information sharing products, which included Security Awareness Messages (SAMs) and Cybersecurity Awareness Messages (CAMs) to stakeholders for the period October 1, 2019, to September 30, 2020.
- TSA disseminated 44 formal intelligence products in FY 2021.[9]

Objective 2: Community outreach: Encourage industry engagement with first responders and the public to enhance understanding of community risks associated with MTPR systems
Activity 1: Promote MTPR security awareness in communities surrounding critical MTPR assets and systems
Key Accomplishments: TSA conducted BASE evaluations on high-risk mass transit and passenger rail agencies as well as on systems which fall outside of this group to evaluate the establishment of public awareness campaigns and emergency management programs. Surface Transportation Security Inspectors conducted the following: • Forty-four mass transit and passenger rail assessments were conducted in FY 2020. • One hundred and eight mass transit and passenger rail assessments were conducted in FY 2021.

Table 4: Freight Rail (FR) Progress Assessment

Goal 1: Manage risks to transportation systems from terrorist attacks and enhance system resilience
Objective 1: Security Planning: Reduce the risks associated with terrorist attacks on freight railroads through security plans that address cybersecurity and critical infrastructure protection, and operational practices (to detect and deter)
Activity 1: Develop, review, and update security plans based on available information
Key Accomplishment: All railroads that transport RSSM through HTUA reported they have security plans and contingency preparations to implement enhanced risk mitigating measures at elevated terrorism alert levels.
Activity 2: Develop a comprehensive cybersecurity strategy
Key Accomplishment: All railroads that transport RSSM through HTUA reported they have security plans and contingency preparations to implement enhanced risk mitigating measures at elevated terrorism alert levels. In addition, TSA has: • Developed and issued TSA Security Directive 1580-21-01, Enhancing Rail Transit Cybersecurity. • Developed and issued TSA Information Circulars on Enhancing Cybersecurity in Surface Transportation (IC-Surface-2021-01, IC-Surface-2022-01 and IC-Surface-2022-02).

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[9] Fifty-two formal intelligence products disseminated to stakeholders for the period October 1, 2021 to June 30, 2022.

Objective 2: Security Training: Conduct training of frontline employees to identify, prevent, and respond to a terrorist attack

Activity 1: Improve freight railroad security training programs through the incorporation of best practices and lessons learned in existing training curriculum

Key Accomplishment: TSA published a final rule on Security Training for Surface Transportation Employees. See 85 FR 16456 (March 23, 2020). This rulemaking requires owner/operators of higher-risk freight railroad carriers, public transportation agencies (including rail mass transit and bus systems), passenger railroad carriers, and over-the-road bus companies to provide TSA-approved security training to employees performing security-sensitive functions. The training curriculum must teach employees how to observe, assess, and respond to terrorist-related threats and incidents.

As of July 8, 2022, TSA has received 28 of 28 anticipated FR security training programs. TSA has approved 27 while the final program remains under review.

Objective 3: Security Exercises: Conduct exercises employing threat scenarios to evaluate and identify opportunities to improve security preparedness and resiliency

Activity 1: Railroads participate in exercises to evaluate the preparedness for, response to, and recovery from security incidents

Key Accomplishment: Completed one I-STEP freight rail exercise in coordination with the AAR with multiple Class 1 freight railroads. The I-STEP exercise resulted in improved coordination between the railroad and local emergency responders, and the identification of best practices. Multiple I-STEP and EXIS exercises were cancelled or postponed in FY 2020 due to the COVID-19 pandemic.

No exercises were conducted with Class 1 Railroads in FY 2021, however, three Freight Rail operators participated in two exercises hosted within other modes.

Goal 2: Enhance effective domain awareness of transportation systems and threats

Objective 1: Intelligence and Information Sharing: Maintain and enhance mechanisms for information and intelligence sharing between the freight rail industry and government

Activity 1: Provide timely and relevant information and intelligence to enhance freight railroads' domain awareness

Key Accomplishments:
- Provided monthly reports analyzing "significant security concerns" made by railroads to comply with 49 CFR part 1580 and provided quarterly reports with trend analysis.
- Maintained and managed a database of Rail Security Coordinators for freight railroads, hazardous materials shippers, and hazardous materials receivers.
- Provided 84 intelligence and information sharing products, which included Security Awareness Messages (SAMs) and Cybersecurity Awareness Messages (CAMs) to stakeholders for the period October 1, 2019, to September 30, 2020. All of these products were provided within 24 hours of release.

- To promote security awareness, TSA leveraged its Exercise Information System (EXIS) to share with over 10,500 individuals in the public and private sector I-STEPs updated Training Resource Catalogue of 900 available transportation security-related courses addressing all transportation modes.
- Maintained and managed a database of Rail Security Coordinators and Cybersecurity Coordinators for freight railroads, hazardous materials shippers, and hazardous materials receivers.
- TSA disseminated 44 formal intelligence products in FY 2021 and 86 in FY 2020.[10]

Objective 2: Community Outreach: Engage with first responders and the public to provide awareness of security concerns associated with railroad operations in order to promote situational security awareness and preparedness
Activity 1: **Promote freight railroad security awareness in communities surrounding critical freight assets and systems**
Key Accomplishment: Mitigated current threats and vulnerabilities using RMAST activities, which typically include TSA TSI-S discussing security awareness issues with stakeholders and personnel. In FY 2020 and FY 2021, TSA facilitated security awareness training for 249 freight rail employees.

Table 5: Highway and Motor Carrier (HMC) Progress Assessment

Goal 1: Manage risks to transportation systems from terrorist attacks and enhance system resilience
Objective 1: Security Planning: Reduce the risks from a terrorist attack on HMC systems through security plans that address cybersecurity and critical infrastructure protection, and operational practices (to detect and deter)
Activity 1: Develop, review, and update security plans based on available information
Key Accomplishments: - Continued a BASE re-visitation plan to provide security engagement to our stakeholders through the BASE program, and to impact security postures while solidifying performance metrics through reengagement efforts.   FY 2020:   - Completed 87 BASE assessments (6 trucking; 20 school bus company; 47 school district; 9 over-the-road bus (OTRB); and 5 OTRB terminal) that provided a random sample of operators' voluntary implementation of recommended security measures. Due to the HMC mode's large number of operators, TSA assessed prioritizing those operating in HTUAs to identify progress and areas that need improvement in security plans.

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[10] Fifty-two formal intelligence products disseminated to stakeholders for the period October 1, 2021 to June 30, 2022.

- Conducted 40 Security Enhancement Through Assessment (SETA) events with HMC stakeholders in FY 2020. This non-regulatory and collaborative assessment is designed to evaluate and improve a stakeholder's security posture at the front-line employee level through a three-phased approach of initial assessment, training, and reassessment. These tailored tactical level assessment scenarios include vehicle inspection procedures, unattended bag response, and other assessments based on those stakeholders' input.

FY 2021:

- Completed 63 BASE assessments (5 trucking; 10 school bus company; 36 school district; and 12 over-the-road bus (OTRB)) that provided a random sample of operators' voluntary implementation of recommended security measures. Due to the HMC mode's large number of operators, TSA conducted assessments prioritizing those which operate within HTUAs to identify progress and need-to-improve areas in security plans.

- Conducted 37 Security Enhancement Through Assessment (SETA) events with HMC stakeholders in FY 2021. This non-regulatory and collaborative assessment is designed to evaluate and improve a stakeholder's security posture at the front-line employee level through a three phased approach of initial assessment, training and reassessment. These tailored tactical level assessment scenarios include vehicle inspection procedures, unattended bag response, and other tailored assessments based on stakeholders' input.

Activity 2: Develop a comprehensive cybersecurity strategy

Key Accomplishments:

FY 2020:

- Completed 87 BASE assessments (6 trucking; 20 school bus company; 47 school district; 9 OTRB; and 5 OTRB terminal) that provided a random sample of operators' voluntary implementation of recommended security measures covering cybersecurity practices.

FY 2021:

- Completed 63 BASE assessments (5 trucking; 10 school bus company; 36 school district; and 12 over-the-road bus (OTRB)) that provided a random sample of operators' voluntary implementation of recommended security measures covering cybersecurity practices.

Objective 2: Security Training: Conduct training of employees to identify, prevent, respond to, and recover from a terrorist attack

Activity 1: Improve the current state of the most critical motor carriers' security training programs through the incorporation of best practices and lessons learned into existing training plans

Key Accomplishments:

- TSA published a final rule on Security Training for Surface Transportation Employees. See 85 FR 16456 (March 23, 2020). This rulemaking requires owners and operators of higher-risk operations to provide TSA-approved security training to employees performing security-sensitive functions. The training curriculum must teach employees how to observe, assess, and respond to terrorist-related threats and/or incidents.

- Mitigated current threats and vulnerabilities using RMAST activities, which typically include TSA TSI-S discussing security awareness issues with stakeholders and personnel.

Throughout FY 2020, TSA facilitated security awareness training for over 19,000 HMC employees throughout the Nation.

- TSA scheduled the final rule to take effect on June 22, 2020, with the deadline for submitting training programs set for September 20, 2020. However, numerous surface transportation stakeholders, who are affected by the security training rule, requested changes to the final rule's effective date and regulatory deadlines due to the ongoing challenges from COVID-19. In special consideration, TSA provided relief to these owners/operators and extended the compliance deadline three times for submitting security training programs to TSA for approval. The final deadline was set for June 21, 2021. Because of the impact of COVID-19, owner/operators staggered their submission of the required security training programs to TSA for approval, resulting in TSA's delayed processing of the security training programs. TSA's review of security training programs is on-going.

- As of July 8, 2022, TSA has received 58 of 61 anticipated OTRB security training programs, 54 of which TSA has approved. TSA has also mitigated current threats and vulnerabilities using RMAST activities, which typically include Transportation Security Inspectors - Surface (TSI-S) discussing security awareness issues with stakeholders and personnel. Throughout FY 2021, TSA facilitated security awareness training for over 14,353 HMC employees throughout the Nation.

Objective 3: Security Exercises: Conduct exercises employing threat scenarios to evaluate and identify opportunities to improve security preparedness and resiliency

Activity 1: Motor carriers participate in exercises to evaluate the preparedness for, response to, and recovery from security incidents

Key Accomplishments:
- Continued a BASE re-visitation plan to provide security engagement to our stakeholders through the BASE program, and to impact security postures while solidifying performance metrics through reengagement efforts.

- Completed five I-STEP exercises between FY 2020 and FY 2021, and one EXIS activity in FY 2021 based on overarching TSA risk mitigation and resilience strategies and plans. In July 2021, TSA also conducted a multi-modal I-STEP TTX in Atlanta, GA, which included school bus operators. These exercises resulted in improved coordination between the highway motor carriers and local emergency responders, and the identification of best practices. These exercises also provide information on further TSA resources such as BASE.

Goal 2: Enhance effective domain awareness of transportation systems and threats

Objective 1: Intelligence and Information Sharing: Maintain and enhance mechanisms for information and intelligence sharing between the HMC industry and government

Activity 1: Provide timely and relevant information and intelligence to enhance industry's domain awareness

Key Accomplishments:

- Sponsored the delivery of daily reports to stakeholders through the Public Transit-Surface Transportation OTRB Information Sharing and Analysis Center. In addition, TSA released 13 intelligence products related to HMC threats and incidents.
- TSA disseminated 44 formal intelligence products in FY 2021 and 86 in FY 2020.[11]
- Sponsored the delivery of daily reports to stakeholders through the Public Transit-Surface Transportation-Over-The-Road-Bus Information Sharing and Analysis Center.

Objective 2: Community Outreach: Encourage industry engagement with first responders and the public to enhance understanding of community risks associated with HMC systems

Activity 1: Promote HMC security awareness in communities surrounding critical HMC assets

Key Accomplishments:
- Continued a BASE re-visitation plan to provide security engagement to our stakeholders through the BASE program, and to impact security postures while solidifying performance metrics through reengagement efforts.
- Provided security awareness and TSA security initiative updates at more than 20 public and private stakeholder events and calls.
- Conducted 64 SETA events in FY 2020 and FY 2021, which simulated a coordinated terrorist attack by covertly placing unattended bags/suspicious bags on school buses and on OTRB operators.
- Pursuant to the *TSA Modernization Act* (P.L. 115-254), TSA participated in the establishment of the Surface Transportation Security Advisory Committee (STSAC), to advise the TSA Administrator on key surface transportation security matters, and enhance TSA's ability to identify and implement solutions to complex security challenges (like cybersecurity, insider threat, and measuring security effectiveness) through open communication and collaboration with surface transportation industry leaders.

Table 6: Pipeline Progress Assessment

Goal 1: Manage risks to transportation systems from terrorist attacks and enhance system resilience

Objective 1: Security Planning: Reduce the risks from a terrorist attack on pipeline systems through security plans addressing critical infrastructure protection, operational practices (to detect and deter), and cybersecurity

Activity 1: Review, implement, and update security plans based on risk and guidance in the TSA Pipeline Security Guidelines

Key Accomplishment: Conducted on-site reviews of security plans at 21 critical pipeline companies and 60 critical pipeline facilities, in FY 2020, and 24 critical pipeline companies and 54 critical pipeline facilities in FY 2021, to assess their adherence to the security plan guidance in the TSA Pipeline Security Guidelines.

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[11] Fifty-two formal intelligence products to stakeholders for the period October 1, 2021 to June 30, 2022.

Activity 2: Review, implement, and update cybersecurity plans based on risk and guidance in the TSA Pipeline Security Guidelines
Key Accomplishment: Conducted CSRs with 21 critical pipeline companies in FY 2020 and on-site reviews of security plans at 24 critical pipeline companies and 54 critical pipeline facilities in FY 2021 to assess cybersecurity plans adherence to the security plan guidance in the TSA Pipeline Security Guidelines.

Objective 2: Security Training: Conduct training of employees to identify, prevent, absorb, respond to, and recover from a terrorist attack
Activity 1: Review and implement security training programs based on training requirements and guidance in the TSA Pipeline Security Guidelines
Key Accomplishments: • Conducted on-site reviews of security training at 21 and 24 critical pipeline companies and 60 and 54 critical pipeline facilities, in FY 2020 and FY 2021 respectively, to assess their adherence to the security training guidance in the TSA Pipeline Security Guidelines. • Eighty percent of companies and facilities assessed met the guideline provisions.

Objective 3: Security Exercises: Conduct exercises employing threat scenarios to evaluate and identify opportunities to improve security preparedness and resiliency
Activity 1: Pipeline systems participate in exercises to evaluate the preparedness for, response to, and recovery from physical or cyber security incidents
Key Accomplishments: • Conducted on-site reviews of security exercises at 21 and 24 critical pipeline companies and 60 and 54 critical pipeline facilities, in FY 2020 and FY 2021 respectively, to assess their adherence to the security exercise guidance in the TSA Pipeline Security Guidelines. • Greater than 61 percent of companies assessed met the guideline provisions. • Conducted an I-STEP Pipeline Tabletop Exercise with Plains All-American pipeline operator on March 10, 2020, in Gonzales, LA, to strengthen security plans, emergency procedures, and sharpen skills in incident management. • Conducted a TTX Peoples Gas on July 13, 2021, in Chicago, IL, to discuss improvised explosive devices, and cyber security.

Objective 4: Physical Security Measures: Reduce the risks from an attack on pipeline systems through physical security measures addressing critical infrastructure protection.
Activity 1: Review, implement, and update physical security measures based on risk and guidance in the TSA Pipeline Security Guidelines
Key Accomplishments: • Planned, developed, and executed, in collaboration with law enforcement and public safety agencies, one I-STEP based on overarching TSA risk mitigation and resilience strategies and plans. • I-STEP resulted in improved coordination between the pipeline company and local emergency responders, and the identification of best practices.

> - Beginning in late FY 2021 and early FY 2022, TSA entered into a new CFSR contract with Partner Forces. One key addition to the contract was to conduct gap analysis between what was being implemented at the facility level compared to the policies written in both their corporate security plan and site specific security plans. A report will be provided to operators to ensure they review their plans to address any shortfalls to ensure conformance with the Pipeline Security Guidance.

Objective 5: Cybersecurity: Reduce the risks from a cyber-attack on pipeline systems through security measures addressing critical infrastructure protection

Activity 1: Review, implement, and update cybersecurity measures based on risk and guidance in the TSA Pipeline Security Guidelines

Key Accomplishment: Conducted CSRs with 21 and 24 critical pipeline companies and Critical Facility Security Reviews at 60 and 54 facilities in FY 2020 and FY 2021 respectively, to assess cybersecurity measures adherence to guidance in the TSA Pipeline Security Guidelines. In addition, TSA accomplished the following:

- Developed and issued TSA SD Pipeline-2021-01A, Enhancing Pipeline Cybersecurity.
- Developed and issued TSA SD Pipeline-2021-02A, Pipeline Cybersecurity Mitigation Actions, Contingency Planning, and Testing.
- Developed and issued TSA SD Pipeline-2021-02B, Pipeline Cybersecurity Mitigation Actions, Contingency Planning, and Testing.[12]
- Developed and issued TSA Information Circular Pipeline-2021-01 Enhancing Pipeline Cybersecurity to Noncritical Pipeline owner/operators.
- Developed and issued TSA SD Pipeline-2021-01B, Enhancing Pipeline Cybersecurity.

Goal 2: Enhance effective domain awareness of transportation systems and threats

Objective 1: Intelligence and Information Sharing: Maintain and enhance mechanisms for information and intelligence sharing between the pipeline industry and government

Activity 1: Provide timely and relevant information and intelligence to enhance industry's domain awareness

Key Accomplishments:

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[12] SD02C, signed July 27, 2022, is a continuation of the SD-02 series, and supersedes and replaces SD Pipeline-2021-02B. SD02C is effective on July 27, 2022, and applies to Owner/Operators of hazardous liquid and natural gas pipelines or a liquefied natural gas facility notified by TSA that their pipeline system or facility is critical. More information can be found here: Memorandum for Covered Pipeline Owners/Operators

- Provided 84 intelligence and information sharing products, which included Security Awareness Messages (SAMs) and Cybersecurity Awareness Messages (CAMs) to stakeholders for the period October 1, 2019, to September 30, 2020.[13]
- TSA disseminated 44 formal intelligence products in FY 2020 and 86 in FY 2021.[14]

Objective 2: Community Outreach: Encourage industry engagement with first responders and the public to enhance understanding of community risks associated with pipeline systems
Activity 1: Promote pipeline security awareness in communities surrounding critical pipeline assets and systems
Key Accomplishments: - Conducted on-site reviews of community outreach at 21 and 24 critical pipeline companies and 60 and 54 critical pipeline facilities, in FY 2020 and FY 2021 respectively, to assess their adherence to the community outreach guidance in the TSA Pipeline Security Guidelines.   - Planned, developed, and executed, in collaboration with law enforcement and public safety agencies, one I-STEP based on overarching TSA risk mitigation and resilience strategies and plans. I-STEP resulted in improved coordination between the pipeline company and local emergency responders, and the identification of best practices.

Table 7: Intermodal Progress Assessment

Goal 1: Manage risks to transportation systems from terrorist attack and enhance system resilience
Objective 1: Manage risks from transportation vulnerabilities in vital supply chains
Activity 1: Identify and assess key supply chain transportation assets and systems
Key Accomplishment: This activity's associated measures are no longer applicable, and will be revised in the next iteration of the strategy.
Activity 2: Support state and local government to remediate physical security vulnerabilities of transportation operations to protect critical infrastructure
Key Accomplishment: This activity's associated measures are no longer applicable, and will be revised in the next iteration of the strategy.
Objective 2: Encourage adoption of global supply chain transportation-related standards, regulations, guidelines, and best practices

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[13] Although not in the scope of this report, TSA provided 38 intelligence and information sharing products to stakeholders for the period October 1, 2021 to May 24, 2022.

[14] Fifty-two formal intelligence products disseminated to stakeholders for the period October 1, 2021 to June 30, 2022.

Activity 1: Implement the ISPS to assess the effectiveness of anti-terrorism measures in foreign ports, build security capacity where gaps exist, and impose conditions of entry on vessels arriving in the United States from ports with substandard security

Key Accomplishment: Though progress over FY 2020 was made, the target goal was missed primarily due to competing mission demands and lack of resources. Resource issues stem from COVID-19 crew-related impacts as well as a lack of physical resources in geographic areas with higher-risk profiles. Resumption of in-person training and outreach in FY 2022 will help field units to better understand total addressable risk and how to improve risk reduction.

USCG resumed port security assessments as COVID travel restrictions eased, and re-established relationships with maritime trade partner maritime counterparts. Note: assessments conducted on 3-year cycle.

Goal 2: Enhance effective domain awareness of transportation systems and threats

Objective 1: Enhance federal analysis and sharing of transportation security supply chain information to improve situational awareness of terrorist threats

Activity 1: Implement advance notice of arrival protocols including CBP's 24-Hour Advance Manifest Rule and the USCG's 96-Hour Advance Notice of Arrival to identify higher-risk cargo movements for enhanced security review

Key Accomplishments:
- Used Pre-Loading Advance Cargo Information to examine the application of advance cargo information and as a platform for dialogue among program participants and between regulators and industry.
- CBP achieved near 100 percent identification rate for potentially high-risk cargo that is assessed or scanned prior to departure or upon arrival at a U.S. port of entry.

Objective 2: Strengthen and grow stakeholder partnerships and collaboration on supply chain resilience

Activity 1: Streamlining security processes in collaboration with public and private sector partners to enhance U.S. economic competitiveness by enabling lawful trade

Key Accomplishment: Performance results indicate near entirety of importers into the United States are compliant with U.S. trade laws, and ensure a high level of confidence for the automated processing of over 30 million shipments each year.

Goal 3: Safeguard privacy, civil rights, and civil liberties; and the freedom of movement of people and commerce

Objective 1: Manage transportation risks in the global supply chain networks to promote the efficient flow of commerce

Activity 1: Expand risk segmentation through advanced technology to enable low-risk trade and travel (Automated Targeting System, Automated Manifest System, Air Cargo Advance Screening, and Customs-Trade Partnership Against Terrorism (C-TPAT))

Key Accomplishment: CBP works with the trade community through both voluntary public-private partnership programs, wherein some members of the trade community adopt tighter security measures throughout their international supply chain and in return are afforded benefits, and those programs that require mandatory information of cargo carriers. This includes a variety of trade actors, such as importers, carriers, brokers, consolidators/third party logistic providers, Marine Port Authorities and Terminal Operators, and foreign manufacturers.

Activity 2: Streamlining security processes in collaboration with public and private sector partners to enhance U.S. economic competitiveness by enabling lawful trade

Key Accomplishment: Performance results indicate that almost 100 percent of importers into the U.S. are compliant with U.S. trade laws, and ensure a high level of confidence for the automated processing of over 30 million shipments each year.

Appendix C: Acronym List

Acronym	Definition
AAR	Association of American Railroads
ACAS	Air Cargo Advance Screening
ACI	Aviation Cyber Initiative
ATS	Automated Targeting System
BASE	Baseline Assessment for Security Enhancements
CAM	Cybersecurity Awareness Message
CBP	U.S. Customs and Border Protection
CI	Critical Infrastructure
CISA	Cybersecurity and Infrastructure Security Agency
CSR	Corporate Security Review
CT	Computed Tomography
C-TPAT	Customs -Trade Partnership Against Terrorism
DHS	U.S. Department of Homeland Security
EDS	Explosive Detection System
FAMS	Federal Air Marshal Service
FBI	Federal Bureau of Investigation
FEMA	Federal Emergency Management Agency
FR	Freight Rail
FY	Fiscal Year
HMC	Highway and Motor Carrier
HTUA	High Threat Urban Area
ICAO	International Civil Aviation Organization
ISPS	International Ship and Port Security
I-STEP	Intermodal Security Training and Exercise Program
MSRO	Maritime and Security Response Operations
MTPR	Mass Transit and Passenger Rail
MTS	Maritime Transportation System
MTSA	Maritime Transportation Security Act
NA	National Amendment
NMSAC	National Maritime Security Advisory Committee
NSTS	National Strategy for Transportation Security
OTRB	Over-the-road bus
R&D	Research and Development
RMAST	Risk Mitigation Activities for Surface Transportation
RSSM	Rail Security-Sensitive Materials
SAM	Security Awareness Message
SETA	Security Enhancement Through Assessments
SLTT	State, Local, Tribal and Territorial
STSAC	Surface Transportation Security Advisory Committee

TSA	Transportation Security Administration
TSGP	Transportation Security Grant Program
TSI-S	Transportation Security Inspector - Surface
TTAL	Top Transit Asset List
UAS	Unmanned Aircraft Systems
USCG	United States Coast Guard