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Subcommittee on Transportation, Housing and Urban Development,
and Related Agencies
United States House of Representatives**

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**Top Management
Challenges Facing the
Department of
Transportation**

**Statement of
The Honorable Calvin L. Scovel III
Inspector General
U.S. Department of Transportation**



Chairman Latham, Ranking Member Pastor, and Members of the Subcommittee:

Thank you for inviting me here today to discuss the Department of Transportation's (DOT) top management challenges for fiscal year 2013. We report annually on these challenges, as required by Congress and the Office of Management and Budget (OMB). Our November 2012 report¹ identified actions that DOT should take to address its top priority of transportation safety and maximize its investments to maintain and modernize transportation systems. The Department spends over \$70 billion annually on a wide range of programs and initiatives to meet these priorities, and we continue to support its efforts through our audits and investigations. My statement today will summarize the Department's top management challenges along three cross-cutting areas: (1) enhancing aviation and surface safety, (2) ensuring effective stewardship of the Department's resources, and (3) effectively implementing transportation infrastructure programs. I will also highlight DOT's actions taken to date to address some of these challenges.

SUMMARY

Enhancing aviation and surface safety continues to be the Department's top priority. This past year, the Department made important progress toward meeting new statutory airline safety requirements to advance voluntary safety programs at air carriers and improve pilot rest requirements. However, the Department is faced with challenges to fine-tune how it collects, verifies, and uses safety data and to bolster its industry oversight with respect to aircraft maintenance, inspector resources, and pilot performance and training. In terms of surface safety, fatalities on the Nation's highways have generally declined over the last several years, and the Department has taken actions to remove unsafe commercial drivers and carriers from roadways. Going forward, it will be critical that the Department similarly address vulnerabilities with pipeline safety programs and implement recently enacted surface safety legislation across several program areas.

While DOT has received a clean opinion on its financial statements for the last 6 years, longstanding weaknesses with its acquisition planning and oversight, contract management, and grants management have limited its ability to maximize the return on investments. This past year, our work highlighted the need for the Department to better safeguard its investments in key transportation assets. These challenges include enforcing reforms to business practices within the Metropolitan Washington Airports Authority (MWAA), carefully managing debts and financing to repair and improve Washington, DC's Union Station, and protecting sensitive information at the U.S. Merchant Marine Academy. The Department must also take steps to effectively guide

¹ OIG Report Number PT-2013-011, "Top Management Challenges for Fiscal Year 2013, Department of Transportation," November 15, 2012. OIG reports and testimonies are available on our Web site: www.oig.dot.gov.

changes to its information technology (IT) infrastructure and protect its 400-plus systems from unauthorized access and cyber threats.

Finally, global and domestic travel are projected to significantly increase the demand on our transportation systems, and the Department faces considerable challenges in improving the Nation's airspace and surface infrastructure. A key related concern is the Next Generation Air Transportation System (NextGen)—a multibillion-dollar effort to modernize the U.S. air traffic control system. The Department is working diligently to address the numerous challenges we have identified with this highly complex undertaking, but much work remains to refine implementation plans and tighten cost and schedule controls for critical programs to ensure NextGen delivers promised benefits that represent sound investments of taxpayer dollars. At the same time, the Department is confronted with maximizing surface infrastructure investments, executing new legislative requirements that change how both States and the Department plan and manage infrastructure projects, and establishing effective controls over billions in relief funds in the wake of Hurricane Sandy.

ENHANCING AVIATION AND SURFACE SAFETY

Improving aviation industry oversight and implementing new surface safety requirements will be key to maintaining and improving the United States' excellent transportation safety record. This past year, the Department has made important progress toward meeting new airline safety requirements to advance voluntary safety programs at air carriers and improve pilot rest requirements. However, our work shows DOT must do more to maximize existing data to identify trends and root causes of safety issues, enhance risk-based oversight at carriers and repair stations, and mitigate air traffic controller fatigue. In terms of surface safety, fatalities on the Nation's highways have generally declined over the last several years. However, the Department must implement a number of safety requirements enacted in 2012 to enhance motor coach and transit safety and develop a national tunnel inspection program. In addition, several fatal pipeline accidents over the past few years have highlighted the need for increased oversight of pipeline operators.

Advancing FAA's Use of Data and Industry Oversight To Mitigate Aviation Safety Risks

The U.S. air transportation system continues to be among the safest in the world, due largely to efforts by the Federal Aviation Administration (FAA) and the aviation industry. However, our audit work shows a number of areas where FAA can improve its oversight efforts. A top priority for FAA is to accurately count and identify trends that contribute to operational errors—events where controllers do not maintain safe separation between aircraft. FAA statistics indicate that reported operational errors rose by 53 percent between fiscal years 2009 and 2010. While operational errors remained at these levels during fiscal years 2010 and 2011, the most serious reported

errors continued to increase. FAA reports that these rose by 49 percent from fiscal year 2009 to fiscal year 2011 (from 37 to 55, respectively).

In January 2012, FAA issued new policies and procedures for collecting, investigating, and reporting separation losses.² However, their effectiveness is limited by incomplete data and implementation challenges. FAA lacks an accurate baseline on the number of separation losses due to its limited review of Traffic Analysis and Review Program (TARP) data³ and exclusion of some potential operational errors reported under the Air Traffic Safety Action Program (ATSAP)⁴ from its official count. At the time of our ATSAP review last year, approximately 50 percent of all ATSAP event reports⁵ were classified as “unknown,” and therefore some errors may have been excluded.⁶ Likewise, as we reported last month, FAA does not analyze and report all separation losses that are automatically flagged by TARP. FAA only investigates losses of separation identified by TARP when aircraft come within less than 70 percent of the required separation distance.

In July 2012, we reported a number of management issues with ATSAP that the Agency must address to correct known deficiencies and realize the program’s full potential. These include a lack of formal processes to review ATSAP committee decisions on errors and enforce key program guidelines and requirements. Failure to address these issues not only undermines efforts to improve safety in the National Airspace System but also may lead to the perception that ATSAP is an amnesty program that automatically accepts reports of serious incidents, regardless of whether they qualify.

FAA’s oversight of aircraft repair stations also remains a concern. Major air carriers have significantly increased spending on contracts for aircraft maintenance—rising from \$1.5 billion in 1996 (37 percent of total maintenance costs) to \$4.2 billion in 2011 (62 percent of total maintenance costs). Yet, our current work has found that FAA’s oversight of foreign and domestic repair stations emphasizes completing mandatory inspections instead of targeting resources to where they are needed based on risk. In addition, FAA has not provided inspectors with national-level data analyses that would enhance their ability to assess repair station performance. Instead, FAA inspectors typically rely on their personal knowledge of repair stations rather than comprehensive, standardized procedures to conduct inspections and communicate results. As a result of these weaknesses, FAA cannot ensure repair

² Losses of separation occur when aircraft do not maintain the minimum required distance apart. Most losses of separation are classified as either an operational error (if the controller’s actions caused the loss) or a pilot deviation (if the pilot’s actions caused the loss).

³ TARP is an automated system that detects losses of separation at air traffic terminal facilities.

⁴ ATSAP is a voluntary, non-punitive program in which controllers can self-report safety incidents and concerns.

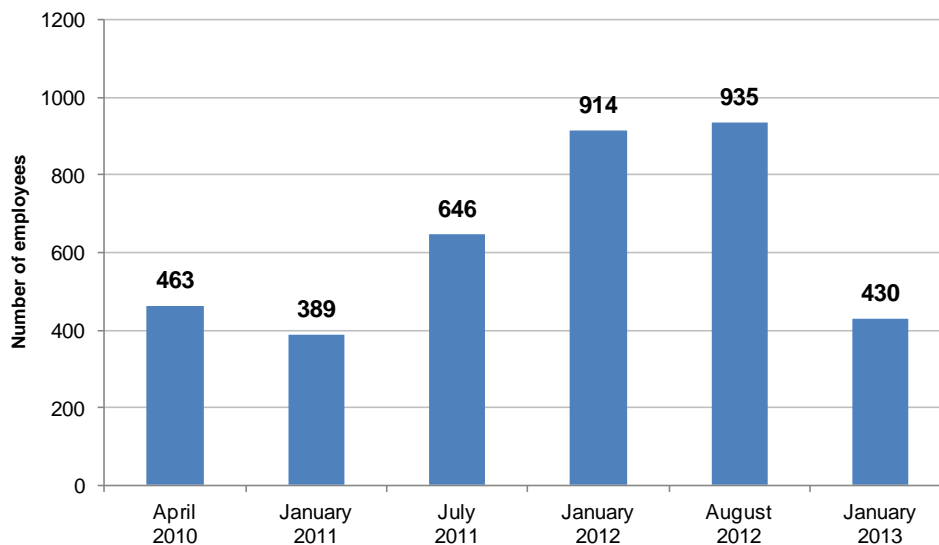
⁵ Event reports identify actual or potential losses of separation, including operational errors, or other situations that may degrade air traffic safety.

⁶ FAA changed how it categorizes event reports in January 2012. However, the committees that review ATSAP reports still do not contact facilities if they believe an event is unknown to management.

stations have implemented corrective actions that will prevent deficiencies from reoccurring.

At the same time, FAA has not developed a reliable process for placing its 4,300 inspectors where they are most needed. In 2006, a congressionally mandated National Research Council study recommended that FAA develop a new staffing allocation approach. FAA completed a new staffing model in October 2009 but has not been able to fully rely on its results when requesting additional inspectors during the annual budget process. As of January 2013, FAA personnel have reported the results of the staffing model six times, with each iteration showing very different nationwide employee shortages (see figure 1). FAA must further refine this tool so that it more effectively projects staffing needs and allocates inspector resources.

Figure 1. FAA’s Model-Projected Employee Shortages



Source: OIG analysis of FAA data

Strengthening safety also requires continual focus on aviation’s “front line” workforces: airline pilots and FAA air traffic controllers. The fatal Colgan Air crash in 2009 highlighted a number of pilot performance issues and culminated in the Airline Safety and FAA Extension Act of 2010.⁷ FAA has made important progress on many of the Act’s requirements, such as advancing voluntary safety programs and improving pilot rest requirements. However, FAA has not met the Act’s timelines for raising pilot training standards, implementing mentoring programs, or providing enhanced leadership skills to captains. FAA also missed the Act’s deadline to substantially raise airline pilot qualifications by August 2012, which would provide some flexibility for pilots regarding the Act’s new 1,500-hour requirement. Without

⁷ Airline Safety and Federal Aviation Administration Extension Act, Pub. L. No. 111-216 (2010).

FAA's rule, the Act's requirements will automatically go into effect for air carriers in August 2013, and FAA must ensure they make the necessary adjustments to their pilot training and qualification programs. FAA also faces challenges in developing a pilot records database because it will have to determine how to incorporate data from FAA, air carriers, and the National Driver Registry in a way that is accessible for air carriers to review during the pilot hiring process.

A series of high-profile incidents in early 2011 involving controllers who were sleeping while on duty sparked public concern about controller fatigue and prompted FAA to institute a series of policy changes. These include placing an additional air traffic controller on the midnight shift at certain facilities and mandating a minimum of 9 hours off between evening and day shifts. As directed by the FAA Modernization and Reform Act of 2012,⁸ we are assessing these new controller scheduling practices with a focus on safety considerations during schedule development, the cost effectiveness of scheduling practices, and the impact of scheduling practices on air traffic controller performance.

Strengthening Surface Safety Programs and Effectively Implementing New Safety Requirements

Fatalities on the Nation's highways have declined by over 25 percent since 2005, but highway deaths still total over 30,000 each year.⁹ The Department must work with its State and local partners to tackle persistent challenges as well as new requirements enacted in the Moving Ahead for Progress in the 21st Century Act of 2012 (MAP-21).¹⁰

Over the past year, the Federal Motor Carrier Safety Administration (FMCSA) took actions to remove unsafe commercial drivers and carriers, including motor coach companies, from roadways. FMCSA also implemented a more stringent safety assurance process that new entrants must complete. However, it has yet to address two action items raised by our office and the National Transportation Safety Board (NTSB): (1) implement promised checks on whether U.S.-based commercial vehicles display proof of compliance with manufacturing standards and (2) issue a new regulation tightening controls over the leasing of buses. FMCSA should also carry out safety reviews, commercial driver's license endorsements, and inspections as well as collaborate with the National Highway Traffic Safety Administration (NHTSA) on new MAP-21 provisions to strengthen motor coach safety.

MAP-21 also provided FMCSA with a critical new oversight tool by allowing it to revoke the registration of reincarnated carriers—a safety concern we reported in April

⁸ FAA Modernization and Reform Act, Pub. L. No. 112-95 (2012).

⁹ Based on NHTSA's reported traffic fatalities through 2011. However, in December 2012, NHTSA reported that traffic fatalities in the first 9 months of 2012 show an estimated 7.1 percent increase in comparison to the first 9 months of 2011.

¹⁰ Moving Ahead for Progress in the 21st Century Act, Pub. L. No. 112-141 (July 2012).

2012.¹¹ While FMCSA revised its vetting process to identify reincarnated carriers applying for authority to transport passengers and household goods, it still needs to use a risk-based approach to best target its resources before it expands the vetting process to all new motor carrier applicants.

MAP-21 also calls for the Federal Highway Administration (FHWA) to establish a national tunnel inspection program and a tunnel inventory. Highway tunnel safety is a longstanding issue, and our office and the NTSB have previously recommended that FHWA establish such a program. This new program could mirror the national bridge inspection program and should require States to inspect and periodically report on the condition of the Nation's tunnels. FHWA has begun developing tunnel inspection standards. However, to fully meet MAP-21 requirements and promote consistent application of tunnel safety standards, FHWA must take a number of steps. These include issuing regulations that clearly specify what constitutes a tunnel, ensuring its baseline inventory of highway tunnels is accurate, establishing a process to assess inspection data, and developing a training and certification program to help FHWA and State DOT offices recruit and train the staff needed to implement new tunnel safety standards.

The Department's agencies overseeing rail transit and railroads face challenges with broadly expanding their safety oversight roles. Rail transit incidents—including the fatal 2009 Metrorail crash in Washington, DC—have raised notable public concerns about safety oversight. MAP-21 significantly enhances the Federal Transit Administration's (FTA) rail transit oversight authority, and FTA will face a major challenge to carry out these new requirements. By October 1, 2013, FTA must determine whether to certify that each State with a State Safety Oversight agency has an oversight plan in compliance with MAP-21 requirements. FTA also needs to establish safety performance criteria, vehicle safety performance standards, safety certification training for covered personnel, and plans for each transit agency to reduce safety risks. As our prior work shows, it will be critical for FTA to obtain sufficient data on fatalities, injuries, and transit assets given the differences in the types and amount of data currently collected at the State level. FTA should also work expeditiously to establish rail transit-specific goals and performance measures to assess the impact of its new safety efforts.

With regard to railroad safety, the Federal Railroad Administration (FRA) faces significant challenges in carrying out its expanded regulatory role under the Rail Safety Improvement Act of 2008 (RSIA).¹² Congress passed RSIA in response to several high-profile accidents between 2002 and 2008 that resulted in hundreds of casualties and millions of dollars in damages. Under RSIA, FRA is required to

¹¹ Reincarnated carriers are carriers that attempt to operate as different entities in an effort to evade enforcement action, out-of-service orders, or both.

¹² Rail Safety Improvement Act, Pub. L. No. 110-432, Div. A. (2008).

develop 17 new safety regulations for the railroad industry. These new regulations govern a wide variety of areas, such as hours of service requirements for railroad workers, automated collision-prevention technology, standards for track inspections, and safety at highway-rail grade crossings. As of October 31, 2012, FRA has issued 8 of the 17 RSIA-required rules and has made progress on finalizing the remaining 9. However, the Agency issued seven of the eight after the statutory deadlines and has already missed the deadlines for six of the remaining nine. Further, FRA has not provided its oversight staff with the guidance, training, and supervision necessary to oversee compliance with the new RSIA-required regulations. For example, the Agency did not finalize compliance manuals for several new RSIA regulations before its inspectors initiated those new oversight activities. Supervisory review of safety oversight work has been limited because FRA has neither defined what constitutes adequate supervisory review nor required its documentation. Until FRA completes actions on guidance, training, and supervisory review, it will be difficult to fulfill its oversight role as envisioned by Congress.

Providing More Rigorous Oversight of Pipeline Safety Programs

The Pipeline and Hazardous Materials Safety Administration (PHMSA) is responsible for overseeing the safety of the Nation's pipeline system, a network of more than 2.5 million miles of pipeline that moves millions of gallons of hazardous liquids and more than 55 billion cubic feet of natural gas daily. These pipelines can be vulnerable to accidents caused by corrosion, pipe defects, and other factors. Several fatal pipeline accidents over the past few years have highlighted the need for PHMSA to provide more rigorous oversight of pipeline operators. Of particular concern are operators' integrity management programs, intended to reduce the likelihood and severity of pipeline accidents in highly populated or otherwise sensitive areas—such as in 2010, when a 54-year old gas pipeline in San Bruno, CA, exploded, killing 8 people and destroying 38 homes. In its investigation of the accident, NTSB questioned the operator's implementation of its integrity management programs. NTSB recommended that the Secretary perform a top-to-bottom review of PHMSA's processes and procedures used to oversee operators' integrity management program compliance, which is currently being conducted.

In June 2012, we similarly reported vulnerabilities in PHMSA's oversight and enforcement of operators' compliance with their integrity management programs, specifically in regard to hazardous liquid pipelines. For example, PHMSA lacks the capability to identify high-risk pipelines by linking accidents, oversight actions, and pipeline characteristics to their geographic locations. PHMSA faces a number of management challenges, such as increasing field inspections and onsite accident investigations and transitioning to a new risk-based inspection program. In addition, problems at operators' facilities accounted for nearly 34 percent of all significant hazardous liquid accidents that occurred in 2010; however, those integrity management requirements have not kept pace with recent technological advances that

would enhance oversight at such facilities—such as acoustical sensors and devices using ultrasonic guided waves to detect corrosion and dents.

ENSURING EFFECTIVE STEWARDSHIP OF THE DEPARTMENT’S RESOURCES

Careful stewardship of every taxpayer dollar is always critical and is even more acute given current fiscal pressures facing the Government. The Department must effectively plan and oversee acquisitions and adequately prepare its acquisition workforce so that billions in taxpayer dollars achieve mission results. At the same time, DOT will need to address financial management weaknesses we have identified to make the most of its grant resources. This past year, we also evaluated DOT’s management practices for three critical transportation assets and found areas where the Department can improve its oversight to ensure their success and sustainability. These include MWAA, which operates two major airports in the Washington, DC, region and is also responsible for a massive expansion of the DC Metrorail; Union Station, the main multi-modal transportation hub in Washington, DC; and the U.S. Merchant Marine Academy in New York. DOT also continues to face longstanding challenges with maximizing returns on its IT investments and building a stronger information security program to respond to and avert cyber threats.

Managing DOT Acquisitions To Maximize Value and Performance

In fiscal year 2012, DOT obligated approximately \$60 billion on contracts and grants.¹³ Our audits found weaknesses in DOT’s contract management, planning, and oversight, resulting in missed opportunities to improve competition and save taxpayer dollars. Implementing effective governance processes to approve and oversee major IT acquisitions DOT-wide remains a significant challenge. Ineffective acquisition planning and limited oversight have undermined the success of some of DOT’s most critical and costly acquisitions. For example, FAA’s IT investments comprise nearly 94 percent of DOT’s \$2.2 billion IT portfolio. However, DOT’s Investment Review Board, which oversees the DOT-wide portfolio, reviewed only two of FAA’s programs in the past 2 years.¹⁴ However, since 2005, half of FAA’s major air traffic control IT programs have experienced cost overruns, schedule delays, or both. The Department recently issued a Policy Order broadly outlining DOT’s IT governance structure, but it still needs to clearly define the roles of critical agency stakeholders and develop a comprehensive implementation plan.

Planning and oversight weaknesses have also impacted DOT’s ability to create sound contract structures and ensure those dollars are effectively spent. In 2012, we reported that FAA lacked a reliable cost baseline to manage and control costs for its Systems

¹³ According to fiscal year 2012 data provided by DOT; this includes \$6.5 billion on contracts and \$53.5 billion on grants.

¹⁴ FAA has a Joint Resources Council that serves as its modal investment review structure to help ensure FAA’s capital investments fulfill mission priorities and maximize resources.

Engineering 2020 (SE-2020) contracts, which have a cumulated maximum value of \$7.3 billion and provide critical support for NextGen. Likewise, FAA is working to resolve shortcomings with its contract structure for the \$2.1 billion En Route Automation Modernization (ERAM) program—a crucial NextGen program that will replace hardware and software at facilities that manage high-altitude air traffic. Specifically, FAA did not fully adopt best practices to divide the large contract into manageable segments for more effective contract management, making it difficult for FAA and the contractor to understand when deliverables were due and at what cost. Software implementation problems combined with inadequate acquisition planning contributed to a nearly 4-year schedule slip for the program and cost overruns that could exceed \$500 million.

Strengthening the acquisition workforce will be a key component of addressing DOT's acquisition weaknesses—especially at FAA. NextGen programs have vastly increased the Agency's acquisition workload and will require more resources and new skills and training to correct contract management issues. For example, our report on SE-2020 found that FAA did not require its program office contract oversight staff to receive training in contractor oversight methods or use oversight plans. Any oversight plans that were used did not sufficiently detail how to assess contractor performance. Similarly, our work on ERAM found that high turnover with FAA's contracting staff hindered the institutional knowledge needed to successfully administer the complex contract and resulted in FAA's significant use of support service contractors.

DOT must also enhance its oversight of contract practices utilized by grant recipients to ensure ineligible companies do not receive Federal dollars. DOT has a sizeable investment in its Disadvantaged Business Enterprises (DBE) program—with \$4.4 billion distributed to DBE firms through State and local recipients in fiscal year 2011—but faces a number of management challenges. For example, DOT has not provided sufficient guidance or training to recipients who implement the nationwide DBE program. DOT also does not regularly assess its Operating Administrations' oversight of recipients. As a result, weaknesses in certification practices and job site monitoring expose the program to risk of fraud, waste, and abuse. For example, an OIG investigation found that a large concrete pre-cast company had used a certified DBE firm as a “front company” for approximately 15 years to win over \$136 million in fraudulent DBE subcontracts. DOT must take a more proactive oversight approach to ensure that recipients comply with DBE regulations—especially given the rise in DBE fraud and abuse cases, which now represent about 30 percent of our active procurement and grant fraud investigations. Weaknesses in DOT's suspension and debarment program (S&D), such as delayed decisions and reporting, have also put the Department at risk of awarding contracts and grants to individuals with records of wrongdoing and abuse. DOT has revised its S&D policy but can do more to ensure that grant recipients do not award contracts to improper parties. For example, we reported in 2012 that FHWA Division Offices needed better S&D controls for

FHWA's Federal-aid contracts, including those funded by the American Recovery and Reinvestment Act (ARRA),¹⁵ to prevent States' awards to improper parties.

Finally, our investigations continue to identify the need for more vigilant oversight to detect and prevent procurement and grant fraud, waste, and abuse. Grant and procurement fraud cases currently comprise about 50 percent of our active investigations. In fiscal year 2012, our investigations of procurement and grant fraud resulted in 51 indictments, 26 convictions, and \$25 million in fines and other recoveries. Our investigations also pointed to DOT's challenges in ensuring that its grantees' contractors' expenses are proper. For example, in 2011 the former chief executive officer of a firm receiving FTA grants was ordered to repay FTA \$4.3 million for participating in a scheme to submit fraudulent project invoices.

Strengthening Financial Management of Grants

Over the past 6 years, the Department has successfully maintained a clean opinion on its financial statements. However, DOT could do more to maximize the return on investment for its grants. Our audits have identified financial management weaknesses that allow available grant funds to remain committed to projects where they are no longer needed. For example, our tests of DOT's inactive grant Undelivered Orders (UDO)¹⁶ disclosed an estimated \$1.2 billion in grant funds that could be applied to other projects.¹⁷ In July 2012, DOT's Chief Financial Officer (CFO) directed all Operating Administrations to begin a resource-intensive remediation effort to de-obligate or quantify unneeded UDOS. During this remediation effort, which concluded on August 31, 2012, DOT Operating Administrations identified and de-obligated more than \$2 billion in unneeded funding. In February 2013, in response to our recommendation, the Deputy CFO issued a memorandum providing guidance on review of obligations and UDOS.

Another longstanding financial challenge for DOT is the reduction and recovery of improper payments. For example, we reported in 2010 that FAA's risk-based grant oversight for its Airport Improvement Program was not sufficient to prevent or detect an estimated \$31 million in recoverable improper payments made during fiscal year 2008. FAA began implementing a new risk-based grant oversight process in 2012.

DOT also needs to make better use of single audit findings¹⁸ to improve its grantees' financial management practices—especially given the infusion of ARRA funds into the grant management pool. Single audits are a key tool for (1) identifying high-risk

¹⁵ American Recovery and Reinvestment Act, Pub. L. No 111-5 (2009).

¹⁶ UDOS are ordered goods or services that have not been received by the end of a reporting period. Grant UDOS represent funding obligated through grantee agreements that have not been disbursed prior to the end of the reporting period. Our testing focused on grants that had been inactive for at least a year.

¹⁷ Testing as of March 31, 2012.

¹⁸ All non-Federal entities that expend \$500,000 or more of Federal awards in a year are required to obtain an annual audit in accordance with the Single Audit Act Amendments of 1996 and OMB Circular A-133.

grantees, (2) ensuring grant funds are used for their intended purpose, and (3) achieving the accountability requirements prescribed by ARRA. In fiscal year 2012, we issued 133 action memoranda conveying deficiencies in grantees' procedures or operations to oversee grant funds (a 49-percent increase since 2010). The deficiencies included improper reporting of ARRA funds spent, inadequate monitoring of sub-recipients, and questioned costs totaling over \$30 million in fiscal year 2012. In response to an OIG recommendation, DOT established criteria for tracking grantees with single audit findings and determining when actions against grantees are appropriate, such as withholding payments. DOT will need to enforce these criteria to help keep grant funds out of the wrong hands.

Overseeing Management of Key Transportation Assets

This past year, we reported management vulnerabilities with a number of the Department's critical transportation assets. First, in a May 2012 letter to Congressmen Wolf and Latham, we reported our findings with respect to their concerns that MWAA's internal policies, contracting practices, and governance issues limited the Authority's accountability to Congress, stakeholders, and the public—as well as its compliance with the Airports Act.¹⁹ In particular, MWAA's policies and procedures for Board travel, ethics, and transparency were insufficient to ensure the Board's fiduciary and ethical responsibility, and its contracting policies and practices were not resulting in contracts that may have represented best value. In response to our letter, the Secretary, the Governors of Maryland and Virginia, and the Mayor of the District of Columbia mandated immediate reform to MWAA's business practices. The Secretary appointed an Accountability Officer to ensure the reforms are addressed. In November 2012 we reported that MWAA had begun correcting the deficiencies we identified, including suspending contracts with former Board members. However, we also found additional deficiencies with the Authority's ethics-related procedures, such as violations of anti-nepotism and gift provisions going undetected. MWAA is now working to enhance policies, controls, and oversight in the areas of procurement, ethics, hiring and compensation, and transparency. We, along with the Department, are currently assessing MWAA's efforts in response to our recommendations. Going forward, the Department will need to remain focused on enforcement mechanisms, such as the Accountability Officer, to ensure weaknesses are effectively addressed.

Union Station in Washington, DC, is also facing significant financial challenges. While FRA owns the Station, the Department charged the non-profit Union Station Redevelopment Corporation (USRC) with managing and protecting Federal interests in the property. For the past 25 years, USRC has funded basic maintenance and improvements with Station revenue. However, debts and expected outlays for repairs and structural improvements may potentially exceed USRC's ability to self-finance and require the Department's fiscal intervention. USRC and FRA need to develop a

¹⁹ Metropolitan Washington Airports Act, Pub. L. No. 99-591 (1986).

comprehensive plan and funding streams for these repairs and improvements before the facility becomes a safety concern.

Our review of the U.S. Merchant Marine Academy found a lack of Federal and DOT security control requirements to sufficiently protect its local area network (LAN) and Web site from unauthorized access. The Academy—operated by the Department’s Maritime Administration (MARAD)—is responsible for training shipboard officers for the U.S. Merchant Marine. As an institution of higher education, the Academy possesses personally identifiable information (PII)²⁰—such as student applications accepted through its Web site and grade records maintained in its LAN. The Department will need to increase oversight of MARAD and the Academy to protect their information and systems.²¹

Finally, DOT has the opportunity to maximize its IT investments and create a more robust information security program. Each year, DOT spends approximately \$3 billion on its more than 400 IT systems—one of the largest IT investments in the Federal Government. However, as we reported in April 2012, despite its \$48 million investment and years of effort, DOT lacks an enterprise architecture (EA) to align IT investments with its mission, reduce duplicative systems, effectively spend information security funds, and realize cost savings. An effective EA is required for each Federal department under the Clinger-Cohen Act²² and is intended to reduce costs in purchasing, training, and staffing; improve security through the development and use of mandatory security standards; and reduce technical risk by using industry standards on technology infrastructure. We recommended that DOT develop or revise its EA policy and procedures, and DOT plans to develop an overarching EA policy by July 2013.

We also reported last year that DOT’s information security program did not meet key OMB and Federal Information Security Management Act requirements to protect Agency information and systems from increasingly aggressive and technically proficient cybercriminals. As a result, in 2011, DOT again declared its information security deficiencies a material weakness in its annual assurance statement required by the Federal Managers’ Financial Integrity Act. DOT has yet to implement 21 of 35 security recommendations that we have made since 2009 that would permit it to meet Federal IT security requirements. Collectively, these recommendations would serve as a roadmap for security improvements to the Department’s program.

²⁰ PII is any information about an individual maintained by an agency, including, but not limited to, education, financial transactions, medical history, and criminal or employment history and information that can be used to distinguish or trace an individual’s identity, such as their name, and social security number.

²¹ As required by the Federal Information Security Management Act of 2002 and the Departmental Cybersecurity Policy, DOT Order 1351.37, July 7, 2011.

²² Clinger-Cohen Act (formerly the Information Technology Management Reform Act), Pub. L. No. 104-106 (1996); codified at 40 U.S.C. § 11101, *et seq.* (2011).

In addition, we continue to identify mode-specific security deficiencies. For example, weaknesses with access controls for FAA's air traffic control leaves some of our most critical systems vulnerable to unauthorized access or cyber attacks. The Department must also remain vigilant on its plans for reducing PII.²³ For example, our ongoing review of the Civil Aviation Registry, which contains PII of airmen and aircraft owners, found that PII data were not adequately protected from compromise. We identified numerous deficiencies in the configuration of the Registry system's software that render it vulnerable to attacks that can lead to unauthorized access. According to FAA, the upgrades to correct these vulnerabilities are slated for implementation during fiscal year 2013.

The Department's Office of the Chief Information Officer (OCIO) could do more to guide and oversee Operating Administrations in building and sustaining strong Department-wide information security practices. For example, OCIO has yet to issue Department-wide procedural guidance or improve quality assurance reviews of modal cyber security efforts. To build a strong information security program, the Department and the Operating Administrations must work together to continue addressing deficiencies in a sustainable and flexible manner so that DOT can quickly adapt to and avert new cyber threats.

EFFECTIVELY IMPLEMENTING INFRASTRUCTURE PROGRAMS

Expanding and supporting our Nation's transportation infrastructure translates to billions of dollars annually. The Department is working diligently to address challenges with FAA's NextGen, but much work remains to move from planning to implementation, tighten cost and schedule controls, and better define benefits and an end state for users. The Department must also execute new legislation impacting highway and transit programs and provide effective oversight to maximize Federal dollars by ensuring grantees keep projects within budget; on schedule; and free from fraud, waste, and abuse. The new infusion in Hurricane Sandy relief funds underscores the need for effective controls.

Addressing Longstanding Challenges With Critical NextGen Efforts

Air travel is expected to nearly double over the next 2 decades. To meet this increased demand, FAA has been working for 8 years to modernize aging equipment, systems, and facilities and improve airspace efficiency through NextGen. While FAA has made some progress toward improved air traffic management, our work continues to find longstanding problems with cost increases, schedule slips, and performance shortfalls

²³ OMB requires agencies to reduce the volume of information collected and maintained, restrict access, and implement other security controls (e.g., encryption) to prevent unauthorized access. In fiscal year 2011, the Department provided plans for reducing PII and the use of Social Security numbers and for establishing the required privacy protections.

with key FAA modernization projects—challenges that have been exacerbated by the fiscally constrained Federal environment.

A central question with NextGen has been when users will begin realizing benefits. For the near-term, FAA launched its metroplex effort in 2010—a 7-year effort to improve the flow of traffic and efficiency at congested airports in 13 major metropolitan areas. FAA has completed initial studies or begun design work at 8 of the 13 metroplex locations but continues to face challenges with shifting from planning to implementation. FAA has pushed the expected completion date for all metroplex sites by 15 months to September 2017 after determining that its initial schedule was too aggressive. In August 2012 we reported that FAA needs to address a number of barriers to its metroplex effort, which have slowed other NextGen initiatives. These barriers include working across diverse Agency lines of business, updating policies, streamlining the process for implementing new flight procedures, applying environmental regulations, upgrading controller automation tools, and training controllers on new advanced procedures. FAA has begun working to address our recommendations to effectively implement its metroplex effort and address these barriers in a timely manner.

DOT will need to set realistic plans, budgets, and expectations for key NextGen programs, as their pace, implementation, and overall cost impact one of the largest investments of taxpayer dollars in the Federal Government. FAA now spends almost \$1 billion annually on NextGen efforts and plans to spend \$2.4 billion between 2013 and 2017 on the six programs that will provide NextGen’s foundational technologies and infrastructure.²⁴ However, it has yet to complete an integrated master schedule to manage implementation of these six programs—many of which are interdependent. Without a master schedule, FAA will be challenged to (1) fully address operational, technical, and programmatic risks; (2) prioritize and make informed tradeoffs for programs’ costs and schedules; and (3) determine what capabilities should be delivered first. FAA is currently working on the integrated master schedule in response to our April 2012 recommendation.

FAA’s long-term goals for NextGen ultimately depend on the success of its ongoing efforts to deploy ERAM—a \$2.1 billion system for processing flight data. Without ERAM, the key benefits of the transformational programs, such as new satellite-based surveillance systems and data communications for controllers and pilots, will not be possible. FAA originally planned to complete ERAM by the end of 2010, but significant software problems impacted the system’s ability to safely manage and separate aircraft and raised questions as to what capabilities ERAM will ultimately deliver. As a result, FAA rebaselined the program in 2011, pushing its expected

²⁴ These six programs are Automatic Dependent Surveillance-Broadcast, System Wide Information Management, Data Communications, NextGen Network Enabled Weather, NAS Voice System, and Collaborative Air Traffic Management Technologies.

completion to 2014 and increasing cost estimates by \$330 million. Since then, FAA has made considerable progress toward getting ERAM on track. The Agency is using the system on a full-time basis at several sites—a significant step forward given the extensive software problems at the two initial sites—and resolving high-priority software problems. However, as FAA deploys ERAM to the Nation’s busiest facilities, it expects to identify new software problems that will impact the cost and schedule. If software problems persist, the program’s cost growth could exceed \$500 million, and delays could stretch to 2016.

Another critical—and costly—step in FAA’s NextGen efforts will be the extent to which it realigns and consolidates the Nation’s air traffic control facilities. FAA’s current plans for an integrated facility in the New York metropolitan area represent a significant step on the path to achieving operational efficiencies. However, successfully implementing any plan will require FAA to make informed decisions regarding cost, schedule, technical capabilities, and the impact on the aviation workforce. In July 2012, we recommended that FAA develop and regularly update comprehensive cost estimates for construction, equipment, increased salaries, relocation expenses, and training for its consolidation effort. As FAA’s plans evolve, addressing these issues early will better position FAA to achieve potential cost savings and the benefits of NextGen. FAA plans to provide a detailed cost estimate for the integrated New York facility by the end of 2014. To completely implement our recommendation, FAA will eventually need to produce detailed financial information regarding any longer term plans to consolidate facilities in other locations.

Many of FAA’s difficulties with implementing NextGen over the years have stemmed from underlying management challenges, such as assigning responsibility, accountability, and authority. After completing a study in 2011 that examined potential improvements, FAA announced a major reorganization that includes a new program management office. This new office will work to bridge the gap between NextGen’s strategic requirements and program implementation. FAA is still in the early stages of this reorganization, and work remains to establish best practices and institutionalize changes.

Maximizing Surface Infrastructure Investments and Executing New Legislative Requirements

FHWA and FTA face challenges in overseeing the billions in Federal funds provided annually to construct and maintain the Nation’s vast network of roadways and transit systems. While both agencies have taken steps to improve project oversight, our work continues to find areas where FHWA and FTA can better ensure projects meet Federal requirements and maximize the return on Federal dollars.

FHWA can do more to hold States accountable for approximately \$40 billion in annual Federal-aid dollars for highway and bridge investments through several

important actions. First, FHWA must follow through on promised actions to correct States' insufficient oversight of local public agency (LPA) programs²⁵ in order to mitigate risks such as noncompliance with prevailing wage rate requirements and improper processing of contract changes. Second, FHWA's Division Offices can better define Federal and State oversight roles and program risks and priorities within Stewardship and Oversight Agreements and ensure States perform required value engineering studies at the outset of a project to improve performance, cost, and quality. Finally, as we reported in April 2012, FHWA must continue to implement lessons learned from ARRA, such as identifying best practices and improving oversight of State DOT bidding practices to foster competition and maximize use of funds.

We have also identified areas where FTA can improve its oversight—which relies heavily on contractors—to maximize the return on the approximately \$10 billion it provides annually to more than 1,300 States and localities. For example, FTA Headquarters must provide its regional offices and oversight contractors with enhanced guidance to ensure they consistently identify and accurately track deficiencies found during key audits of FTA grantees. Additionally, after our assessment of the multibillion-dollar Dulles Corridor Metrorail Project, FTA recognized that the safety, schedule, and cost risks we identified merited an internal review of its project management oversight contractor processes.

One of the biggest challenges currently facing both agencies is implementing new initiatives enacted in MAP-21, which will impact the way both States and the Department plan and manage infrastructure projects. MAP-21 places priority on accelerating project delivery, as a typical highway project takes an average of 13 years to complete. In addition to tying up resources, long project delivery times delay opportunities to reduce highway congestion and improve traffic safety. MAP-21 incorporates a specific set of initiatives, such as broadening States' ability to acquire or preserve the property needed for a project before completion of lengthy environmental impact reviews. MAP-21 also requires DOT to move toward more performance-based investment management of its highway and transit programs. Accordingly, DOT must establish new rules and performance standards, link performance data to funding processes, and modify oversight mechanisms. DOT will be challenged to put performance management into actual practice, as demonstrated by its difficulties with assessing project impacts across its multi-modal Transportation Investment Generating Economic Recovery discretionary grant program.

Another new and urgent challenge is the widespread damage Hurricane Sandy caused to the mid-Atlantic and northeastern United States' transportation infrastructure. DOT and its affected modes are responsible for establishing appropriate controls and sufficient oversight levels for about \$13 billion in relief funds provided to DOT by the

²⁵ LPAs include cities, counties, and other local entities managing federally funded projects.

Disaster Relief Appropriations Act of 2013 (Relief Act). FTA faces unique challenges as most of DOT's funding—\$11 billion—was allocated to FTA's Public Transportation Emergency Relief Program, which was just established by MAP-21 in July 2012.²⁶ FTA is taking steps to establish this new program but may also make available up to \$2 billion of the relief funds by March 30, 2013, per the Relief Act's requirements.²⁷ In addition, FTA and the other modes will need to use oversight mechanisms to ensure all relief funds are spent effectively, for approved purposes, and in accordance with Federal requirements.

Enhancing Oversight of the High Speed Intercity Passenger Rail Grant Program

Legislation enacted in 2008²⁸ dramatically expanded FRA's role and responsibilities from primarily providing railroad safety regulations to establishing and overseeing a large grant program to fund various types of intercity passenger rail improvements. In addition, ARRA infused an unprecedented amount of new capital to develop and implement the High Speed Intercity Passenger Rail Program (HSIPR). As of December 2012, FRA has awarded and obligated 99 percent of \$10.1 billion in HSIPR grant funds but has only disbursed about 7 percent due to a number of challenges.

First, FRA completed its Grants Management Manual for HSIPR grant administration, but it has not developed sufficient guidance for grantees and FRA staff to comply with the policies and procedures set forth in the manual. As a result, grantees have had trouble completing required grant documentation correctly and in a timely manner. Lack of finalized guidance has also required FRA to be more involved in negotiating agreements between stakeholders to clarify its expectations and address disputes, resulting in a more time-consuming process. If delays with projects' agreements continue, obligated funds will sit idle instead of being freed up for projects with completed agreements. As the HSIPR program progresses, FRA will need finalized guidance that provides clear direction to grantees on completing required agreements and to applicants on developing project grant applications to enable proper evaluations of project viability.

Second, FRA has not established clear program goals and measures to assess the HSIPR program. While FRA has issued 10 documents containing strategic and performance goals for assessing HSIPR program progress, inconsistencies across these documents make it difficult for grant managers and decision makers, including

²⁶ This program was established to help States and public transportation systems pay for protecting, repairing, and/or replacing equipment and facilities that may suffer or have suffered serious damage as a result of an emergency.

²⁷ The Disaster Relief Appropriations Act [Pub. L. No. 113-2 (2013)] provides that FTA may award up to \$2 billion within 60 days of the Act's passage and requires that FTA not award additional funds after the 60 days until it had entered into the memorandum of agreement with FEMA and issued the interim regulations for its Public Transportation Emergency Relief Program.

²⁸ Pub. L. No. 110-432, Div. B.

Congress, to know what goals the program is to achieve. A key step to better define HSIPR program goals—and what their outcomes should be—is completion of the congressionally mandated National Rail Plan, which would also define the roles of the Department, States, and other stakeholders.

Finally, FRA has not fully addressed HSIPR program staffing and training needs to effectively administer grant funds. While FRA has now filled 91 percent of the positions in the division responsible for HSIPR oversight, the Agency lacks a comprehensive training curriculum—due in part to delays in developing its Grants Management Manual. In lieu of a comprehensive training curriculum, FRA requires HSIPR personnel to attend Agency-provided training sessions on topics such as grant monitoring and applicant outreach. While FRA previously did not require its grants management staff to complete fraud awareness training, it has recently started collaborating with our office to provide them access to such training. Moreover, since we issued our report in September 2012, FRA has made progress in developing a comprehensive grants management training curriculum, and we are currently assessing its actions.

CONCLUSION

A safe and well-managed transportation system is fundamental to our economic health and quality of life. The Department has clearly demonstrated its commitment to continually improve and oversee the Nation's transportation systems that are important to safely and efficiently move people and energy sources and grow the U.S. economy. The Department has made notable strides to strengthen protections over our airspace, highways, transit systems, and pipelines. To adequately address oversight challenges, the Department must continue to refine how it analyzes aviation safety data and targets airline industry oversight resources and focus on adjusting surface safety programs to align with MAP-21 requirements. At the same time, the Department must make efficient use of funds through improved acquisition and grant management—an ongoing challenge with multi-modal impact—and maximize investments in vital information systems. As the Department continues to take on challenges with modernizing our Nation's transportation infrastructure, it will be critical to exercise lessons learned from multibillion-dollar infusions of funds to keep new and existing programs free of fraud, waste, and abuse and quickly establish strong controls over relief funds. Through our audits and investigations, we continue to support the Department in carrying out its mission by identifying opportunities for safety improvements, program efficiencies, and cost savings.

This concludes my statement, Mr. Chairman. I will be happy to answer any questions you or Members of the Subcommittee may have.