U.S. Department of Transportation

ANNUAL PERFORMANCE PLAN

FISCAL YEAR 2014

TABLE OF CONTENTS

01 **SAFETY**

02 Roadway Safety (FHWA, FMCSA, and NHTSA)

05 Aviation Safety (FAA)

10 Pipeline Safety (PHMSA)

11 Hazardous Materials Safety (PHMSA)

13 Transit Safety (FTA)

14 Railroad Safety (FRA)

15 Improved Safety Experience for All Road Users (OST)

16 **STATE OF GOOD REPAIR**

17 Highway Infrastructure (FHWA)

19 Transit Assets (FTA)

20 Airport Runways (FAA)

21 Northeast Corridor Assets and Infrastructure (FRA)

23 **ECONOMIC COMPETITIVENESS**

24 Maximizing Economic Returns on Policies and Investments—Highways (FHWA)

27 Maximizing Economic Returns—High-Speed Intercity Passenger Rail (FRA)

28 Maximizing Economic Returns—Aviation (FAA)

30 Maximizing Economic Returns—Saint Lawrence Seaway System Availability (SLSDC)

32 A Competitive Air Transportation System Responsive to Consumer Needs (FAA)

33 U.S. Transportation Interests Advanced in Targeted Markets Around the World—Bilateral and Multilateral Agreements (OST)

34 Expand Opportunities for Businesses in the Transportation Sector (OST)

36 **LIVABLE COMMUNITIES**

37 Improved Networks and Improved Access (FHWA)

39 Increased Access to Convenient and Affordable Transportation Choices—Transit (FTA)

40 Improved Access to Transportation for People With Disabilities and Older Adults (FRA)

42 Increased Access to Convenient and Affordable Transportation Choices—High-Speed Intercity Passenger Rail (FRA)

44 **ENVIRONMENTAL SUSTAINABILITY**

45 Reduced Carbon Emissions, Improved Energy Efficiency, and Reduced Dependence on Oil—Aviation Fuel Efficiency (FAA)

46 Reduced Transportation-Related Air, Water, and Noise Pollution and Impacts on Ecosystems—Aviation Noise (FAA)

48 Reduced Transportation-Related Air, Water, and Noise Pollution and Impacts on Ecosystems—Pipelines (PHMSA)

49 Increased Use of Environmentally Sustainable Practices (OST)

52 Reduced Pollution or Other Adverse Environmental Effects from DOT-Owned or -Controlled Services and Facilities—Ship Disposal (MARAD)

53 Reduced Carbon Emissions, Improved Energy Efficiency, and Reduced Dependence on Oil (FTA)

STRATEGIC GOAL:
SAFETY

SAFETY

Improve public health and safety by reducing transportation-related fatalities and injuries

ROADWAY SAFETY (FHWA, FMCSA, AND NHTSA)

WHY IS THIS EFFORT NECESSARY?

Roadway safety is the top priority of the Department of Transportation (DOT). Three DOT agencies—the Federal Highway Administration (FHWA), the Federal Motor Carrier Safety Administration (FMCSA), and the National Highway Traffic Safety Administration (NHTSA)—work together to address multiple dimensions of roadway safety. FHWA delivers the capability to improve mobility on our Nation's roadways through national leadership and innovation. FMCSA delivers safety-related programs aimed at reducing crashes, injuries, and fatalities involving commercial motor vehicles through education, innovation, regulation, enforcement, and partnerships. NHTSA delivers data-driven programs designed to save lives, prevent injuries, and reduce the economic costs caused by crashes through education, research, safety standards, and enforcement activity. Together, these Operating Administrations (OAs) support outreach, education, enforcement, and demonstration programs aimed at the public and specific transportation industries to reduce roadway crashes, injuries, and fatalities. The agencies also make extensive use of safety-related data to evaluate the impact of new vehicle and infrastructure technologies, focus inspection activities, prioritize and address risks, and assess enforcement techniques.

In calendar year (CY) 2011, motor vehicle traffic crashes resulted in 32,367 fatalities in the U.S. The Department continues to take actions to address this serious public safety problem. The financial burden of highway crashes is at least $230 billion per year, which is a sign of the economic magnitude of highway crashes. Only the Federal government has the authority to establish national safety standards for vehicles, regulate motor carriers, and mandate roadway safety features, and a coordinated and comprehensive approach is needed to address roadway safety challenges and issues.

STRATEGIC OUTCOMES AND SUPPORTING PERFORMANCE MEASURES

Reduction in transportation-related fatalities and injuries.

Reduce the Roadway Fatality Rate Per 100 Million Vehicle-Miles Traveled (VMT) to No More Than 1.02 in 2014

	2010	2011	2012	2013	2014
Target	1.30	1.10	1.05	1.03	1.02
Actual	1.11	1.10*	TBD		

* Projected results based on preliminary estimate.

Reduce the Passenger Vehicle Occupant Fatality Rate Per 100 Million VMT to No More Than 0.82 in 2014

	2010	2011	2012	2013	2014
Target	0.99	0.85	0.85	0.82	0.82
Actual	0.84	0.83–0.89*	0.83–0.89*		

* Projection based on historical trend data.

Reduce Motorcycle Rider Fatalities Per 100,000 Motorcycle Registrations to No More Than 63 in 2014

	2010	2011	2012	2013	2014
Target	78	63	63	63	63
Actual	55	56–58*	56–58*		

* Projection based on historical trend data.

Reduce the Non-Occupant (pedestrian and bicycle) Fatality Rate Per 100 Million VMT to No More Than 0.16 in 2014

	2010	2011	2012	2013	2014
Target	0.19	0.16	0.16	0.16	0.16
Actual	0.17	0.16-0.17*	0.16-0.17*		

* Projection based on historical trend data.

Reduce the Large Truck and Bus Fatality Rate Per 100 Million VMT to No More Than 0.114 in 2014

	2010	2011	2012	2013	2014
Target	0.164	0.121	0.117	0.114	0.114
Actual	0.133	0.136*	0.110-0.127*		

* Projection based on historical trend data.

PAST PERFORMANCE AND FUTURE MILESTONES

There were 32,367 roadway fatalities in CY 2011. This represents the lowest number of fatalities since 1949, the year the Federal government began keeping roadway fatality records. The number of people who died on the Nation's roads in 2011 declined by 1.9 percent from 2010, when there were 32,999 fatalities. However, early estimates for 2012 show an increase of 7.1 percent in fatalities for the first nine months of the year. It is too soon to determine if this is a short-term anomaly. In FY 2014, the Department will redouble its efforts to minimize this upturn as much as possible, and return to the overall long-term decline.

Key efforts toward this end include: increasing the spending rate of the Highway Safety Improvement Program (HSIP); and promoting roadway infrastructure improvements including proven countermeasures such as Safety Edge SM, Enhanced Delineation and Friction for Horizontal Curves, Longitudinal Rumble Strips and Stripes on Two-Lane Roads, Corridor Access Management, Roundabouts, Backplates with Retroreflective Borders, Road Diet, Pedestrian Hybrid Beacons, and Medians and Pedestrian Crossing Islands in Urban and Suburban Areas. Other key efforts include maintaining high visibility enforcement campaigns such as *Click It or Ticket,* drunk driving prevention initiatives such as *Drive Sober or Get Pulled Over*, better oversight of licensing for young drivers and commercial operators, and safer vehicles for the reduction in roadway fatalities. Additionally, efforts aimed at specifically reducing the number of fatalities in large trucks include New Motor Carrier Applicant Screening, the enhanced New Entrant Safety Assurance Process, improved information technology used to identify high-risk carriers, and implementation of the Compliance, Safety, Accountability (CSA) enforcement model.

NHTSA, FHWA, and FMCSA are working together to reduce roadway fatalities by the end of CY 2014 to 1.02 fatalities per 100 million vehicle-miles traveled (VMT), down from the 2005 rate of 1.46 fatalities per 100 million VMT, the year Congress enacted the *Safe Accountable, Flexible, Efficient Transportation Equity Act: A Legacy For Users* (SAFETEA-LU).

HOW OUTCOMES WILL BE ACHIEVED

PRIMARY ACTIVITIES SUPPORTING THIS OUTCOME

Grants or Financial Assistance:

- Provide funding to States to implement the Highway Safety Improvement Program (HSIP);
- Issue Motor Carrier Safety Grants to State partners to perform safety audits, roadside inspections, targeted on-site reviews, comprehensive on-site reviews, and off-site reviews;
- Administer State traffic safety grant programs to implement effective highway safety programs; and,
- Use funds to support enhancements to walking and bicycling infrastructure to make these modes safer and more convenient.

Research and Modernization:

- Provide technical assistance and expertise to research, design, and implement roadway infrastructure countermeasures and improvements; and,
- Modernize highway geometric features and safety hardware as part of road and bridge construction, reconstruction, replacement, restoration, rehabilitation, and system preservation projects.

Information Technology (IT) and Analysis:

- Develop motor carrier safety operations IT that is focused on improving data quality and modernizing the availability of roadside information that enables the identification of high-risk drivers and carriers by law enforcement officials; and,
- Improve safety data collection, analysis, and use on all public roads.

Focused Safety Improvement Initiatives:

- Implement High Visibility Enforcement campaigns for impaired driving and occupant protection;
- Fund the implementation of certain safety features to incentivize State investment;
- Conduct vehicle crashworthiness and crash avoidance testing; and,
- Complete the final waves of State-level high visibility distracted driving demonstration projects, including related media campaigns, and publish the results in the spring of 2014.

ENABLING LEGISLATION AND REGULATIONS

Legislation:

- *Moving Ahead for Progress in the 21st Century Act* (MAP-21) (P.L. 112–141) contains a variety of programs that will support safety, including:
  - Highway Safety Improvement Program (HSIP) (Section 1112, 23 U.S.C. 148)
  - National Highway Performance Program (NHPP) (Section 1106, 23 U.S.C. 119)
  - Surface Transportation Program (STP) (Section 1108, 23 U.S.C. 133)
  - Federal Lands Tribal Transportation Program (TTP) (Section 1119, 23 U.S.C. 202)
  - Transportation Alternatives Program (TAP) (Section 1122, 23 U.S.C. 213)
  - Railway-Highway Grade Crossing Program (Section 1519, 23 U.S.C. 130)
  - Highway Safety Programs (23 U.S.C. 402)
  - Research and development programs (23 U.S.C. 403) U.S.C., Title 49 Transportation, Subtitle VI Motor Vehicle and Driver Programs, Chapters 301–331
- U.S.C., Title 49 Transportation, Subtitle B—Other Regulations Relating to Transportation, Chapter III, Federal Motor Carrier Safety Administration, Subchapter A—General Regulations and Subchapter B—Federal Motor Carrier Safety Regulations.

Regulations:

- 23 CFR Parts 470—Highway Systems Planning, 630 Subpart J—Work Zone Safety and Mobility, 924 Highway Safety Improvement Program
- CFR Parts 40—Procedures of Transportation Workplace Drug and Alcohol Testing Programs, 303—Civil Rights, 325—Compliance with Interstate Motor Carrier Noise Emission Standards, 350–399—Federal Motor Carrier Safety Regulations.

RESOURCES, TRAINING, AND SKILLS

Federal Highway Administration:

- IT—An online reporting tool will facilitate the submittal and review processes of the HSIP and Railway-Highway Grade Crossing Program reports.
- Training—FHWA assesses its learning and development needs for Safety Engineers and Specialists within the agency and among its partners. Training is available through the FHWA Resource Center and the National Highway Institute, as well as outside professional and trade associations.
- Skills—Management and Program Analysts and Transportation Specialists who are competent in interpreting and applying safety laws, regulations, and statutory requirements; traffic data analysis tools; safety roadway design; traffic engineering and operations; transportation safety planning; roadway design; and intersection design.

Federal Motor Carrier Safety Administration:

- Training—FMCSA will develop and deliver high-quality motor carrier safety and law enforcement training designed to enhance the capabilities of participating Federal, State, and local government officials and produce highly proficient and capable motor carrier safety professionals and practitioners.
- Skills— Necessary skills include safety enforcement, grant administration, research and information technology, regulatory development and delivery, and organizational infrastructure skills.

National Highway Traffic Safety Administration:

- IT—NHTSA has several safety-related databases: The Advanced Retrieval, Tire, Equipment, Motor Vehicles Information System (Artemis) provides an efficient means to identify and track serious safety defects; the Grants Tracking System is designed to automate the financial process involved with State Highway Safety Program funds; and the National Driver Register is a database of drivers who have had their licenses revoked, suspended, canceled, denied, or who have been convicted of serious traffic violations such as driving under the influence (DUI).
- Training—Specialized training is required to fully familiarize Federal safety professionals with NHTSA's new initiatives related to electronic systems in vehicles and alternative fuel systems.
- Skills—Engineering, statistical, econometric, and analytical skill sets (particularly in the areas of electronics, alternative fuels, and vehicle crash), highway safety data collection and analysis, effective program and contract management, strategic planning, effective networking and communication, understanding the Federal budget process, and managing Federal finances are necessary skill sets.

PARTNERS

DOT works closely with partners at the Federal, State, tribal, and local levels to address every facet of transportation safety. The Department provides guidance and technical assistance to State, tribal, and local governments, and Metropolitan Planning Organizations (MPOs) to help in the development and implementation of comprehensive safety programs. DOT also develops effective countermeasures and enforcement programs to promote safe driving behaviors for passenger and commercial vehicle drivers. Safety partner groups play an important role in disseminating and implementing training and educational efforts. DOT also works with partners in the private sector on the development of safer vehicles and roads and on improved business practices for commercial operators.

RESPONSIBLE OFFICIALS

Victor Mendez, Administrator, FHWA; Anne Ferro, Administrator, FMCSA; and David Strickland, Administrator, NHTSA.

AVIATION SAFETY (FAA)

WHY IS THIS EFFORT NECESSARY?

The Federal Aviation Administration (FAA) will enhance safety by continuing to reinforce a positive safety culture and by making improvements to our aviation standards and industry oversight. Additionally, FAA will proactively identify hazards with a risk-based approach to its continuous analysis of aviation data. Commercial Aviation Safety, General Aviation Safety, and Runway Safety are three key areas where the agency will concentrate efforts to improve safety.

Reducing the risk of aviation accidents is a DOT Agency Priority Goal that concentrates on making improvements to General Aviation (GA) and Commercial Aviation fatal accident rates. Reducing the number of runway incursions also decreases the probability of accidents that potentially involve fatalities, injuries, and significant property damage. Approximately 80 percent of fatal accidents are directly related to one or more human factors, including external organizational influences, inadequate supervision, personnel factors (such as self-imposed stress), and individual acts (such as skill-based errors, misperception errors, and judgment and decision-making errors). Fatal air carrier accidents have declined over all as well as in terms of the average number of fatalities per accident.

FAA oversees the safety of approximately 220,000 GA aircraft in the United States. These aircraft include amateur-built aircraft, rotorcraft, balloons, and highly sophisticated turbojets. By tracking the rate of fatal GA accidents per flight hours, FAA can more accurately pinpoint safety concerns or trends to help form different prevention methods. FAA and industry collaboration on safety initiatives focus on mutual efforts to strive for a lower general aviation fatal accident rate.

STRATEGIC OUTCOME AND SUPPORTING PERFORMANCE MEASURES

Reduction in transportation-related fatalities.

Agency Priority Goal: Reduce risk of aviation accidents. By September 30, 2013, reduce aviation fatalities by addressing risk factors both on the ground and in the air. Commercial Aviation (i.e., airlines): Reduce the rate of fatalities to no more than 7.4 per 100 million people on board in fiscal year (FY) 2013. General Aviation (i.e., private planes): Reduce fatal accident rate per 100,000 flight hours to no more than 1.06 in FY 2013.

Reduce Commercial Aviation Air Carrier Fatalities to No More Than 7.2 Per 100 Million Persons on Board in FY 2014

	2010	2011	2012	2013	2014
Target	8.1	7.9	7.6	7.4	7.2
Actual	0.3	0.0*	0.0*		

*Preliminary estimate

Reduce the General Aviation Fatal Accident Rate Per 100,000 Flight Hours to No More Than 1.05 in FY 2014

	2010	2011	2012	2013	2014
Target	1.10	1.08	1.07	1.06	1.05
Actual	1.10	1.13*	1.10*		

*Preliminary estimate

Reduce Category A and B Runway Incursions in All Airports to a Rate of No More Than 0.395 Per Million Operations in FY 2014

	2010	2011	2012	2013	2014
Target	0.450	0.450	0.395	0.395	0.395
Actual	0.117	0.138	0.356		

PAST PERFORMANCE AND FUTURE MILESTONES

Commercial Aviation Safety:

In FY 2012, with no commercial fatal accidents, FAA was successful in maintaining the commercial air carrier rate below 7.6 fatalities per 100 million people on board. The agency's focused, data-driven safety agenda, with its emphasis on using the latest technology and training to break the chain of events that lead to accidents, along with the work of the Commercial Aviation Safety Team, continue to keep the skies safe for commercial airspace passengers.

FAA is working with aviation industry stakeholders to establish safety management systems within their operations, and it has undertaken several prominent rulemaking projects that address the risks identified during the investigation of the fatal Colgan Air accident in 2009. These include revising requirements for air ambulance operations.

While FAA has issued a final rule on fatigue issues raised by the Colgan Air accident (Flightcrew Member Duty and Rest Requirements), the agency continues to work on several high-priority rulemakings that address other issues raised by the Colgan Air accident. These rulemakings include Flightcrew Member Mentoring, Leadership, and Professional Development; Safety Management Systems for Certificate Holders Operating under 14 CFR part 121; Pilot Certification and Qualification Requirements for Air Carrier Operations; Pilot Records Database; Qualification, Service, and Use of Crewmembers and Aircraft Dispatchers; and the final rule for air ambulance operations, which increases safety requirements for helicopter air ambulances and all helicopters.

The commercial safety record indicates that the agency has successfully addressed the majority of known system risks contributing to accidents or incidents. As FAA develops and deploys the Next Generation Air Transportation System (NextGen), the increased degree of complexity will require improved analytical methods and tools for evaluating the safety risks of proposed changes.

General Aviation (GA) Safety:

FAA did not meet its FY 2012 GA target. FAA finished the year with a rate of 1.10 fatal accidents per 100,000 flight hours, which exceeds the target of 1.07. "Loss of Control" continues to be the leading cause of fatalities, accounting for about 70 percent of all fatal GA accidents. Approximately 80 percent of fatal accidents are directly attributable to human factors. The goal is to reduce GA fatal accidents to no more than 1.05 fatal accidents per 100,000 flight hours in FY 2014.

FAA is working with industry to help reduce the GA accident rate. In FY 2012, FAA officials continued to work with the General Aviation Joint Steering Committee (GAJSC) to take a more focused, data-driven approach to understanding fatal accident causes and contributing factors. This is a government-industry collaborative group that manages efforts to reduce fatal GA accidents. The GAJSC meets to review GA accident trends, establish areas for special emphasis, and share information. The GAJSC had developed 19 proposed corrective actions to address loss of control in GA aircraft. On June 6, 2012, the GAJSC approved 23 safety enhancements. The start date for the time line on all of these Safety Enhancements was August 1, 2012. The Safety Analysis Team is responsible for tracking progress on all safety enhancements. The Safety Analysis Team reports that, as of this time, all safety enhancements are in process and on track.

FAA's Flight Standards organization is implementing several initiatives to reduce fatal GA accidents. One initiative has refocused FAA's Safety Team on GA, and another initiative involves including transition-training requirements for second owners of amateur-built aircraft, as data reveal that a disproportionate number of accidents involve second owners.

FAA's Aircraft Certification Service has streamlined the approval of angle of attack indicators for GA aircraft and is working with the Flight Standards organization to streamline the retrofit of the existing GA fleet with this indicator. Angle of attack indicators provide a pilot with a visual aid to prevent the loss of control of the aircraft in the critical phases of flight. Because of cost and complexity, these indicators have been primarily limited to military and transport aircraft.

Additionally, the Aircraft Certification Service has been working to streamline the certification and installation of inflatable restraints (air bags) so that all GA aircraft will be able to adopt them.

Runway Safety:

A runway incursion is any occurrence at an aerodrome (a location from which aircraft flight operations take place) involving the incorrect presence of an aircraft, vehicle, or person on the protected area of a surface designated for the landing and take off of aircraft. This includes the incorrect presence of an aircraft, vehicle, or person on the protected area of a surface designated for the landing and takeoff of aircraft. Such events can create dangerous situations that could lead to serious accidents involving fatalities, injuries, and significant property damage.

FAA tracks all runway incursions and measures the rate of the following two categories of most serious runway incursions:

- Category A—a serious incident in which a collision was narrowly avoided
- Category B—an incident in which separation decreases and there is a significant potential for collision, which may result in a time-critical corrective/evasive response to avoid a collision

FY 2012 final results for the rate of Category A and B runway incursions was 0.356, just below the established end-of-year goal of 0.395 serious events per million operations. FAA met expectations for this indicator with 18 Category A and B Runway Incursion surface events.

FAA remains committed to work in collaboration with industry and the international community to reduce the risks associated with runway incursions. By developing training and outreach activities targeting runway safety, hundreds of thousands of pilots, air traffic controllers, and airport vehicle drivers have the opportunity to increase operational awareness and help decrease the number of runway incursions. The Runway Safety Program continues to address the aviation industry with proactive, informational communication initiatives. This effort will be supported by the new Surface Risk Analysis Process, which will improve FAA's ability to determine root causes and correct the hazards affecting runway safety. Additionally, separate focused efforts were initiated to address surface risk associated with airport construction, closed runways, approach hold procedures, and call sign confusion. FAA has taken specific actions to instill an open reporting culture so that safety issues are brought to light and addressed. The implementation of non-punitive voluntary safety reporting programs simplified safety reporting processes outlined in new FAA safety orders. New tools supporting these processes have resulted in removing barriers to reporting all surface events.

In an effort to reduce incursion risks, FAA enhanced airport surface markings, reviewed pilot taxi procedures and distractions, required additional driver training, revised air traffic procedures, provided additional support for the efforts of the Runway Safety Council, and emphasized ongoing education and awareness. Given that many foreign air carriers operate within the United States, FAA also continues to support International Civil Aviation Organization runway safety programs. These initiatives, combined with the Runway Safety Council's effort to identify and mitigate the root causes of runway incursions, are expected to reduce the serious runway incursion rate.

HOW OUTCOMES WILL BE ACHIEVED

PRIMARY ACTIVITIES SUPPORTING THIS OUTCOME

Commercial Aviation Safety:

FAA plans the following actions in the near future:

- Issue final rules (listed by sections from Public Law (P.L.) 111–216) related to Part 121 air carriers' flight crewmember mentoring programs, professional development, and leadership training; stall and upset recognition recovery training; remedial training programs; training programs for flight crewmembers and aircraft dispatchers; Part 121 air carrier implementation of a Safety Management System; Part 121 air carrier development and implementation of methods to ensure that flight crewmembers have proper qualifications and experience; and amending Part 61 certification to modify requirements for the issuance of an airline transport pilot certificate;
- Develop and maintain the "FAA Pilots Records Database";
- Develop standards and guidance material for design of security and cybersecurity in transport category airplanes;
- Support the introduction of new materials such as composites into transport category airplanes on a broader scale;
- Work with manufacturers to define equipage requirements and support the introduction of NextGen technology into the National Airspace System;
- Explore ways to ensure consistent and efficient evaluations and approvals of NextGen technologies and operations;
- Continue to develop standards, policies, and guidance materials for Unmanned Aircraft Systems;
- Implement improved training for pilots and aviation safety inspectors to reduce runway incursions;
- Continue to direct and manage the maintenance and improvement of the International Organization for Standardization ISO-9001:2008-based Quality Management System for safety systems;
- Increase capability and expand Aviation Safety Information Analysis and Sharing to provide better access and more effectively monitor safety data;
- Develop an integrated agency-wide Safety Management System;
- Achieve organizational readiness to oversee implementation of Safety Management System by CFR Part 121 air carriers; and,
- Continue to work with engine industry stakeholders to evaluate improved standards for bird ingestion and engine rotor lock.

General Aviation Safety:

FAA plans the following actions in the near future:

- Continue to lead efforts in GA safety outreach and education through the direction of the FAA Safety Team;
- Examine root causes of loss of control accidents through review of policy and guidance, training, testing, and checking processes;
- Develop a plan for mitigating risk;
- Continue to focus on GAJSC training initiatives;
- Focus on flight standardization for certification and fleet characteristics and provide recommendations for revisions to training and operations guidance for experimental amateur-built aircraft;
- Incorporate GA operations data into Aviation Safety Information Analysis and Sharing; and,
- Overhaul the Service Difficulty Reporting system to make critical information concerning aircraft and aircraft components from all Aviation Safety services available from one source. This would include social media as well as current electronic methods of communication.

Runway Safety:

FAA plans the following actions in the near future to reduce runway incursions:

- Maintain and update the National Runway Safety Plan. This plan sets out a Runway Safety Office strategy that ties directly to the DOT and FAA missions.
- Manage efforts of the Headquarters' Runway Safety Program staff and the field offices (in conjunction with the Regional Administrators) to continue improving and providing educational training and awareness tools to commercial and GA pilots, airport vehicle operators, and air traffic controllers.
- Utilize runway safety technology and tools such as training, education, and awareness to reduce the number of serious runway incursions.
- Through the Continuous Improvement Runway Safety Program, FAA will provide training, distribute educational materials, and host communication discussion workshops. The agency will also provide instruction on flight school, collaborative operations planning, teaching curriculum development, and the effective use of runway safety technology.
- The Safety Runway Incursion Reduction Program will continue to develop and mature technology solutions to reduce the likelihood of runway incidents and accidents. When appropriate, runway incursion prevention devices and systems will be tested and qualified with the objective of facilitating airport operator acquisition through the Airport Improvement Program.
- The Runway Status Light program is being rebaselined in the third quarter of Fiscal Year 2013. Once the program is rebaselined, airport sites where this equipment will be deployed will be identified.

ENABLING LEGISLATION AND REGULATIONS

Commercial Aviation and General Aviation Safety:

- Airline Safety and Federal Aviation Administration Extension Act of 2010, P.L. 111–216;
- Airport and Airway Extension Act of 2011, Part II, P.L. 112–16;
- FAA Modernization and Reform Act of 2012, P.L. 112–95;
- Title 14 CFR Part 39 Airworthiness Directives; and,
- Title 49, U.S.C., Transportation.

Runway Safety:

- FAA Advisory Circular 150/5300-Airport Series; and,
- Title 14 CFR Aeronautics and Space:
  - Part 61–Certification: Pilots, Flight Instructors, and Ground Instructors
  - Part 91–General Operating and Flight Rules
  - Part 121–Operating Requirements: Domestic, Flag, and Supplemental Operations
  - Part 135–Operating Requirements: Commuter and On Demand Operations and Rules Governing Persons on Board Such Aircraft
  - Part 139–Certification of Airports
  - Part 141–Pilot Schools
  - Part 142–Training Centers

RESOURCES, TRAINING, AND SKILLS

Commercial Aviation Safety:

- IT—Safety Management System, Aviation Safety Information Analysis and Sharing program, and Aviation Knowledge Management Environment.
- Training—FAA's Leadership Enhancement and Development Program, New Manager's course, and initial and recurrent technical training for Aviation Safety employees, civil aviation authorities, designees, and delegated organizations.
- Skills—Aviation safety inspectors, experienced Part 121 air carrier flight crewmembers, aerospace engineers, pilots; knowledge of safety regulations, audit/surveillance skills, analytical and evaluation skills, and understanding of new technology.

General Aviation Safety:

- IT—Unmanned Aircraft Systems and National Airspace System Integration. Policies, procedures, and approval processes will be developed to provide Unmanned Aircraft Systems seamless access within the NAS.
- Training—FAA Leadership Enhancement and Development Program, New Manager's course, and initial and recurrent technical training for Aviation Safety employees, civil aviation authorities, designees, and delegated organizations.
- Skills—Aviation safety inspector pilots, certified flight instructors, aerospace engineers; knowledge of safety regulations, audit/surveillance skills, analytical and evaluation skills, and understanding of new technology.

Runway Safety:

- IT—Business Objects, a software product used to support Runway Safety data analysis requirements.
- Training—Safety Management Systems, Airports Geographic Information System, and Runway Status Light Systems, etc.
- Skills—The Runway Safety Office requires expertise from all technical areas within FAA—pilots, controllers, environmental specialists, engineers, analysts, IT support staff, and airport inspectors.

PARTNERS

Commercial Aviation and General Aviation Safety:

National Transportation Safety Board, Commercial Aviation Safety Team, General Aviation Joint Steering Committee, International Helicopter Safety Team, Congress, industry organizations, manufacturers, training schools, associations, and civil airworthiness authorities and international organizations.

Runway Safety:

FAA co-chairs the Runway Safety Council with the Air Line Pilots Association. Other Runway Safety Council members include the Airline Transport Association, the Aircraft Owners and Pilots Association, the National Association of Flight Instructors, the National Business Aviation Association, the Regional Airline Association, the National Air Traffic Controllers Association, the Airport Councils International-North America, and the American Association of Airport Executives.

RESPONSIBLE OFFICIALS

Margaret Gilligan, Associate Administrator for Aviation Safety; and J. David Grizzle, Chief Operating Officer, Air Traffic Organization, Federal Aviation Administration.

PIPELINE SAFETY (PHMSA)

WHY IS THIS EFFORT NECESSARY?

Through a network of 2.6 million miles of pipelines, natural gas and hazardous liquid pipelines supply more than two-thirds of the fuel used to heat, cool, and operate the Nation's homes, cars, and businesses—including most of the energy used for transportation. While pipelines are the safest mode of transportation for these materials, the nature of the cargo is inherently dangerous. Because of the large volumes transported, this system presents a particular risk of low-probability, high-consequence failure.

STRATEGIC OUTCOME AND SUPPORTING PERFORMANCE MEASURES

Reduction in transportation-related deaths and injuries.

Reduce the Number of Natural Gas and Hazardous Liquid Pipeline Incidents Involving Death or Major Injury to No More Than 39 Incidents in FY 2014

	2010	2011	2012	2013	2014
Target	30–43	31–44	30–42	29–41	28–39
Actual	37	40	32(p)		

(p) Preliminary estimate

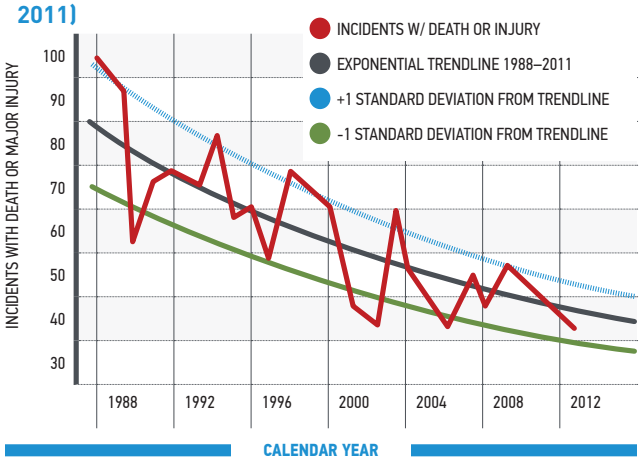
PAST PERFORMANCE AND FUTURE MILESTONES

Pipeline incidents with death or major injury have declined an average of 10 percent every three years between 1988 and 2011. At the same time, most measures of risk exposure—U.S. population, energy consumption, pipeline mileage, and pipeline ton-miles—have increased.

Most of the risk (about 80 percent of the incidents with death or major injury) occurs on natural gas distribution systems, which provide direct services to households and businesses (about 66 million). Since 1988, this risk has dropped from about 1.5 serious incidents per million services to 0.5 per million services.

Future targets are set to continue this long-term trend of performance, using a range to account for normal, annual variation in the numbers.

Pipeline Incidents with Death or Major Injury (1988–2011)



* Preliminary
Source: DOT/PHMSA incident data—as of Dec. 31, 2012.

HOW OUTCOMES WILL BE ACHIEVED

PRIMARY ACTIVITIES SUPPORTING THIS OUTCOME

The Pipeline and Hazardous Materials Safety Administration (PHMSA) oversees the safety and environmental protection of pipelines through:

- Analysis of data;
- Damage prevention;
- Education and training;
- Rulemaking;
- Enforcement of regulations and standards;
- Research and development;
- Grants for State pipeline safety programs;
- Community assistance and outreach; and,
- Emergency planning for response to accidents.

ENABLING LEGISLATION AND REGULATIONS

Pipeline safety legislation (49 U.S.C. 60101–60134) authorizes a comprehensive program for regulating natural gas and hazardous liquid pipelines in the United States. This includes authorization for States to operate inspection and enforcement programs for intrastate pipelines if the States certify that they meet certain minimum standards or enter into an agreement with PHMSA to inspect intrastate or interstate pipelines. PHMSA supports State programs with grant funding, training, and technical assistance.

Pipeline safety regulations (49 CFR 190–199) govern the design, construction, operation, and maintenance of pipelines, as well as administrative procedures for enforcement and management of State grants.

RESOURCES, TRAINING, AND SKILLS

- IT—The Safety Monitoring and Reporting Tool provides a central repository for pipeline safety information, FedStar provides information and tools for State programs, the National Pipeline Mapping System provides geospatial information on the national pipeline infrastructure, and the National Pipeline Information Exchange (NPIX) will provide a 360-degree profile of geographic information associated with 2.6 million miles of pipelines within the United States.
- Training—PHMSA provides a comprehensive training and qualification program for Federal and State inspectors, including a three-year core program for new inspectors.
- Skills—The program needs a mix of skills, with special focus on expertise in engineering, analysis, communications, and grant administration.

PARTNERS

State pipeline safety agencies, which inspect approximately 80 percent of all pipelines.

RESPONSIBLE OFFICIAL

Jeffrey Wiese, Associate Administrator for Pipeline Safety, Pipeline and Hazardous Materials Safety Administration.

HAZARDOUS MATERIALS SAFETY (PHMSA)

WHY IS THIS EFFORT NECESSARY?

On a typical day, more than six million tons of hazardous materials (hazmat), valued at about $4 billion, are moved nearly 900 million miles on the Nation's interconnected transportation network. Petroleum products are used to heat and cool homes and businesses, produce electricity, transport virtually all commercial products, power vehicles for recreational business purposes, and provide raw materials for many products including plastics, fibers, and paints. A variety of chemicals are used to purify water, fertilize crops, create medicines, and manufacture clothing. While these chemicals and energy products are essential to Americans' quality of life, they also introduce some inherent risk.

STRATEGIC OUTCOME AND SUPPORTING PERFORMANCE MEASURES

Reduction in transportation-related deaths and injuries.

Reduce the Number of Hazardous Materials Transportation Incidents Involving Death or Major Injury to No More Than 32 Incidents in FY 2014

	2010	2011	2012	2013	2014
Target	22–36	22–34	22–34	21–33	20–32
Actual	18	34	26(p)		

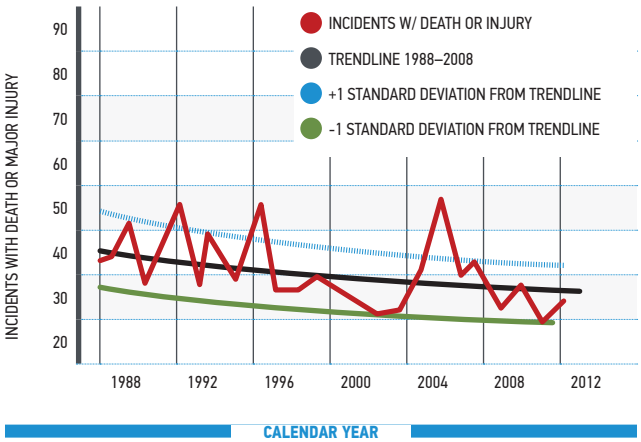
(p) Preliminary estimate

PAST PERFORMANCE AND FUTURE MILESTONES

Hazardous materials incidents with death or major injury have declined an average of 4 percent every three years between 1988 and 2011. At the same time, most measures of risk exposure—U.S. population, energy consumption, freight shipments, and hazardous materials ton-miles—have increased.

Most of the incidents with death or major injury occur in the highway mode, and most of these incidents involve crashes or rollovers of tank trucks. However, there is also a risk of low-probability, high-consequence events in rail (especially with materials that are toxic-by-inhalation) and in aviation (especially with materials that present a fire risk aboard aircraft).

Hazmat Incidents with Death or Major Injury (1988–2010)



* Preliminary
Source: DOT/PHMSA incident data—as of Dec. 31, 2012.

Future targets are set to continue this long-term trend of performance, using a range to account for normal, annual variation in the numbers.

HOW OUTCOMES WILL BE ACHIEVED

PRIMARY ACTIVITIES SUPPORTING THIS OUTCOME

The hazardous materials safety program achieves its goals through:

- Evaluating hazardous materials transportation safety risks;
- Developing and enforcing standards for transporting hazmat;
- Providing compliance assistance to hazardous materials shippers and carriers;
- Offering assistance to State and local emergency responders and law enforcement officials on hazardous materials transportation issues;
- Investigating hazardous materials incidents and failures;
- Conducting research; and,
- Providing grants to improve emergency response to incidents.

ENABLING LEGISLATION AND REGULATIONS

- Hazardous materials safety legislation (49 U.S.C. 5101–5128) authorizes a comprehensive program for regulating the transportation of hazardous materials in the United States.
- The Emergency Planning and Community Right-to-Know Act of 1986 authorizes planning and training grants to States, territories, and tribes for response to hazardous materials incidents.
- Basic authorizing legislation for each mode of transportation (air, rail, highway, and maritime) provides authority for inspection and enforcement by each of the modal operating administrations.
- MAP-21 added several new authorities and requirements for hazardous materials safety. It authorizes a research project and pilot for electronic shipping papers; improves data collection, analysis, and reporting of incidents; solidifies the research and development program; sets performance standards for training hazmat inspectors and investigators; increases maximum civil penalties; and establishes new processes and standards for training grants.
- Hazardous materials safety regulations (49 CFR 100–185) govern the packaging, shipping, carriage, and hazard communication for hazardous materials in transportation.

RESOURCES, TRAINING, AND SKILLS

- IT—The Hazardous Materials Portal provides a central repository for hazmat information used in carrying out the program. Inspection, enforcement, and incident data come from many other systems.
- Training—Each operating administration provides training for its inspectors and investigators.
- Skills—The program needs a broad mix of skills, including expertise in chemistry, physics, engineering, modal operations, analysis, packaging, rulemaking, inspection, enforcement, and grant administration.

PARTNERS

Federal Motor Carrier Safety Administration, Federal Aviation Administration, Federal Railroad Administration, and the U.S. Coast Guard all contribute to achieving this goal through prevention programs focused on their modes of transportation. State and local emergency responders play an important role in mitigating the consequences of incidents that do occur.

RESPONSIBLE OFFICIAL

Magdy El-Sibaie, Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Materials Safety Administration.

TRANSIT SAFETY (FTA)

WHY IS THIS EFFORT NECESSARY?

According to the National Safety Council, passengers on the Nation's bus, rail, and commuter rail systems are 40 times less likely to be involved in a fatal accident than passengers in cars and trucks. Nevertheless, each year there are more than 200 fatalities related to public transportation. There were 228 transit fatalities in 2011, a small increase from the 221 fatalities in 2010. Slightly more than half of transit fatalities come from incidents involving the Nation's heavy rail and light rail systems, even though such systems account for less than half of the Nation's public transportation trips. Under laws in effect through June 2012, FTA established regulations for a State-managed safety oversight program for the Nation's heavy rail and light rail systems with a goal of reducing fatalities on these systems. In addition, FTA established a program of voluntary oversight for transit bus systems, including on-site reviews for selected systems, and developed the requirement for drug and alcohol testing for transit operators. Finally, FTA awards research grants that identify new technologies and best practices to enhance transit safety.

STRATEGIC OUTCOME AND SUPPORTING PERFORMANCE MEASURES

Reduction in transportation-related fatalities.

Reduce the Rate of Transit Fatalities Per 100 Million Passenger Miles Traveled to No More Than 0.530 in 2014

	2010	2011	2012	2013	2014
Target	NA	0.547(r)	0.543(r)	0.538 (r)	0.530 (r)
Actual	0.533	0.535			

(r) Revised; new targets developed in 2011.

PAST PERFORMANCE AND FUTURE MILESTONES

There were 228 fatalities associated with the Nation's transit systems in 2011, a slight increase from the 221 fatalities in 2010 (not including commuter rail).

Future milestones include:

- Taking actions to implement the new safety authorization in MAP-21;
- Assessing safety training; and,
- Undertaking research in support of transit safety.

HOW OUTCOMES WILL BE ACHIEVED

PRIMARY ACTIVITIES SUPPORTING THIS OUTCOME

Under MAP-21, FTA will oversee the safety of transit systems through the following new and continued activities:

- Establishment and enforcement of safety policy and regulations;
- Organization and staffing of a new office of Safety and Oversight;
- Research and development; and,
- Technical assistance and workforce development.

ENABLING LEGISLATION AND REGULATIONS

- 49 U.S.C. 5329 provides FTA with the authority to create and implement a national public transportation safety plan.
- 49 U.S.C. 5329(e)(6) lists the requirements for State Safety Oversight Programs.
- 49 U.S.C. 5329 directs FTA to submit a bus safety study to Congress.

RESOURCES, TRAINING, AND SKILLS

- IT—This activity relies on the IT systems that FTA maintains as part of its National Transit Database and grants management systems.
- Training—Safety training and technical assistance requires FTA to use training tools including classes, webinars, and roundtables to develop analytic, communication, outreach, and management skills.
- Skills—FTA's safety responsibilities, whether regulatory or advisory, require staff with knowledge of engineering, regulatory economics, and legal skills.

PARTNERS

FTA's partners in this effort include transit agencies, State Departments of Transportation, State Safety Oversight Agencies, local governments, and research entities.

RESPONSIBLE OFFICIAL

Vince Valdes, Acting Associate Administrator for Safety and Oversight, Federal Transit Administration.

RAILROAD SAFETY (FRA)

WHY IS THIS EFFORT NECESSARY?

To ensure safety of the Nation's rail operations and infrastructure, the Federal Railroad Administration (FRA) relies on the enforcement of safety regulations, administration of financial assistance programs, and research and development. Nevertheless, during FY 2012, rail-related incidents resulted in 710 fatalities and 7,585 injuries.

FRA regulates more than 760 railroads—including 30 passenger operations, 8 switching yard railroads, approximately 134 tourist/excursion/historical railroads, and 640 freight railroads (some railroads operate more than one type of service). The railroad industry serves as a major U.S. economic driving force; in 2012, it moved the Nation's people and goods more than 741 million train-miles, carried approximately 670 million passengers more than 20 billion miles, and employed approximately 233,000 workers who logged more than 465 million employee-hours.

STRATEGIC OUTCOME AND SUPPORTING PERFORMANCE MEASURES

Reduce rail-related accidents and incidents.

Reduce the Rate of Rail-Related Accidents and Incidents Per Million Train-Miles to No More Than 16.150 by the end of FY 2014

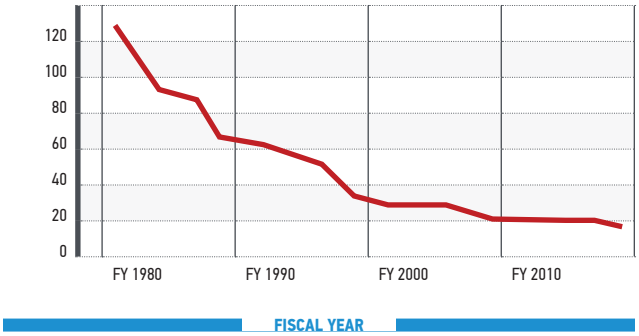
	2010	2011	2012	2013	2014
Target	16.400	16.400	16.300	16.300	16.150(r)
Actual	16.664	15.991	14.557*		

* Based on preliminary data
(r) Revised

PAST PERFORMANCE AND FUTURE MILESTONES

The FY 2012 rate of rail-related accidents and incidents was the lowest since FRA began collecting safety data in the 1970s. For the 10-year period from FY 2003 through FY 2012, the number of reportable rail-related accidents and incidents declined from 14,295 to 10,788 (25 percent), train accidents fell from 2,991 to 1,756 (41 percent), grade crossing incidents decreased from 2,934 to 2,020 (31 percent), and casualties dropped from 10,069 to 8,295 (18 percent). Preliminary data for FY 2012, along with analytical forecasting, indicate that this downward trend will continue for the next several years. The following chart shows the rate of decline over the past 30 years:

Rail-Related Accidents and Incidents Per Million Train-Miles, 1980 to 2012



Source: FRA safety data

PRIMARY ACTIVITIES SUPPORTING THIS OUTCOME

FRA's comprehensive regulatory and compliance program serves as the foundation for rail safety. The efforts of FRA's field inspectors and specialists have driven the unprecedented safety performance, using sophisticated data-driven, risk-based targeting. To achieve higher levels of safety performance, railroads must adopt system safety and risk reduction programs and new technologies, such as positive train control. FRA oversees technology grants, analyzes deployment strategies, and provides technical support. Moreover, FRA is committed to helping to resolve technical and spectrum availability issues that could hinder positive train control implementation. The FY 2014 request will also enable essential system testing oversight and certification. As a part of the National High Performance Rail System, FRA is also requesting funding to support the implementation of positive train control, which will prevent accidents through safety automation.

ENABLING LEGISLATION AND REGULATIONS

- Federal Railroad Safety Act of 1970
- Rail Safety Improvement Act of 2008
- The Railroad Safety section of the Code of Federal Regulations (Title 49 CFR 200–249)

RESOURCES, TRAINING, AND SKILLS

- IT—The Railroad Safety Information System is an effective and efficient data management and analysis tool for FRA's inspectors and analysts. FRA's websites provide important safety information to a wide range of audiences.
- Training—FRA's Railroad Safety Technical Training Standards Division develops and provides discipline-specific training on FRA safety regulations.
- Skills—FRA's rail safety staff includes inspectors, engineers, operations research analysts, economists, program and management analysts, bridge specialists, lawyers, and other professionals.

PARTNERS

Private rail operators and labor; other Federal, State, and local governments; domestic and international associations, councils, and organizations as members of the Rail Safety Advisory Committee; and grant recipients.

RESPONSIBLE OFFICIAL

Jo Strang, Associate Administrator for Railroad Safety and Chief Safety Officer, Federal Railroad Administration.

IMPROVED SAFETY EXPERIENCE FOR ALL ROAD USERS (OST)

WHY IS THIS EFFORT NECESSARY?

Many roadways, especially in urban areas, still fail to provide adequate safety for pedestrians, bicyclists, and people with disabilities. In CY 2011, traffic crashes resulted in 4,432 pedestrian fatalities and 69,000 pedestrian injuries. Traffic crashes also resulted in 677 bicyclist fatalities and an additional 48,000 bicyclist injuries. These fatalities and injuries can be reduced through Complete Streets policies, which encourage roadway design that accommodates all users. Complete Streets policies also make walking and biking more attractive options and support livable communities. DOT can support transportation planners, engineers, and State and local transportation agencies as they develop and implement Complete Streets policies. The Federal Highway Administration (FHWA) adopts safety standards for roadway design, and the National Highway Traffic Safety Administration (NHTSA) promotes safe travel behaviors and has authority to establish safety standards for vehicles.

STRATEGIC OUTCOME AND SUPPORTING PERFORMANCE MEASURES

Improved safety experience for all road users, including motorists, pedestrians, and cyclists, with a focus on children, older adults, and individuals with disabilities.

Increase the Number of States and Localities that Adopt Roadway Designs that Accommodate All Road Users (Complete Streets) to At Least 30 States and 400 Localities by the End of CY 2014

	2010	2011	2012	2013	2014
State–Target	N/A	25	26	27	30
State–Actual	22	26	29		
Local–Target	N/A	220	230	240	400
Local–Actual	192	220	369		

PAST PERFORMANCE AND FUTURE MILESTONES

Through CY 2012, 29 States, including the District of Columbia and Puerto Rico, have adopted internal policies supporting Complete Streets policies. From CY 2009 to 2012, 40 metropolitan planning organizations, 37 counties, and 369 cities passed resolutions, issued executive orders, adopted tax ordinance and internal policies, or completed design guidance/master plans that incorporated and supported the concept of Complete Streets. With the growing recognition that communities need to accommodate all roadway users, the Office of the Secretary of Transportation (OST) expects continued momentum in the adoption of Complete Streets legislation, policies, and plans. However, OST anticipates that this will occur at a somewhat lower rate of growth than was experienced between 2011 and 2012.

HOW OUTCOMES WILL BE ACHIEVED

PRIMARY ACTIVITIES SUPPORTING THIS OUTCOME

OST will improve the safety experience for all road users through:

- Encouraging adoption of State and local Complete Streets policies and programs that improve safety;
- Providing technical assistance to State and local agencies;
- Developing training programs and educational materials for motorists, children, pedestrians, and bicyclists; and,
- Supporting transportation practitioners through context-sensitive solutions program activities.

ENABLING LEGISLATION AND REGULATIONS

- 23 U.S.C. 150(b)(1) "It is in the interest of the United States to focus the Federal-aid highway program on the following national goals: Safety. To achieve a significant reduction in traffic fatalities and serious injuries on all public roads."

RESOURCES, TRAINING, AND SKILLS

- IT—Data derived from the National Complete Streets Coalition.
- Skills—A mix of analytical and communication skills.

PARTNERS

DOT's partners in this effort include State DOTs, local transportation agencies and jurisdictions, bicycle and pedestrian advocacy groups, health advocacy groups, and Safe Routes to Schools coalitions.

RESPONSIBLE OFFICIAL

Polly Trottenberg, Undersecretary for Policy, U.S. Department of Transportation.

STRATEGIC GOAL:

STATE OF GOOD REPAIR

STATE OF GOOD REPAIR

Ensure that the Nation proactively maintains its critical transportation infrastructure in a state of good repair

HIGHWAY INFRASTRUCTURE (FHWA)

WHY IS THIS EFFORT NECESSARY?

Over the past five years, more than 50 percent of States reported an increase in the number of bridges on the National Highway System (NHS) that are candidates for rehabilitation. At the same time, pavement condition declined for 34 percent of all travel on the NHS. The condition of pavement and bridges across the country varies considerably, with many States struggling to maintain current conditions. DOT will continue to make the State of Good Repair objective a top priority in its ongoing commitment to advance strategies and initiatives to improve the safety and condition of the Nation's roads and bridges. Moving Ahead for Progress in the Twenty-First Century (MAP-21) requires States to develop and implement asset management plans and performance plans specifically for their highways and bridge infrastructure. FHWA will initiate rulemakings for both requirements in 2013 with an implementation horizon of 2015.

MAP-21 establishes an enhanced NHS, which is an approximate 223,000-mile network composed of the Interstate Highway System, all principal arterial routes including border crossings, intermodal connectors including toll facilities, and a strategic highway network and its connectors that are important to national defense. The NHS provides mobility to the vast majority of the Nation's population and to almost all of its commerce, supports national defense, and promotes intermodal connectivity.

STRATEGIC OUTCOME AND SUPPORTING PERFORMANCE MEASURES

Increased percentage of highways in good condition. Increased percentage of bridges in good and fair condition.

Increase the Percent of Travel on the Enhanced NHS Roads with Pavement Performance Standards Rated Good to At Least 58.4 Percent in 2014

	2010	2011	2012	2013	2014
Target	54.0%	55.8%	56.0% (r)	57.0% (r)	58.4% (r)
Actual	55.0% (r)	54.3%	56.2%*		

(r) Revised
* Estimate

Reduce the Percent of Deck Area (i.e., the Roadway Surface of a Bridge) on Enhanced NHS Bridges Rated Structurally Deficient to No More Than 7.6 Percent in 2014

	2010	2011	2012	2013	2014
Target	N/A	7.9%	7.8%	7.7%	7.6%
Actual	8.5%	7.9%	7.1%		

PAST PERFORMANCE AND FUTURE MILESTONES

A large increase in Federal highway capital investment under the *American Recovery and Reinvestment Act of 2009,* combined with a decrease in construction materials prices from a peak in 2006, resulted in a significant improvement in physical conditions in 2010 that should continue through 2014. In 2012, an estimated 56.2 percent of vehicle-miles traveled on the enhanced NHS occurred on pavements with good ride quality. With an increase in funding through the National Highway Performance Program (NHPP), the condition of the enhanced NHS will be maintained at this level until 2018. States may also use Surface Transportation Program (STP) funds to further improve the Interstate Highway System and NHS pavements and bridges to address pavement condition needs.

In 2001, the deck area on 9,700 structurally deficient bridges on the enhanced NHS was 8.9 percent. At the end of 2012, the total deck area on approximately 7,500 structurally deficient bridges on the enhanced NHS was 7.1 percent. Despite these positive trends in bridge conditions, the challenge of continuing the improvement trends and preserving existing assets remains.

Maximizing Federal investment in surface transportation infrastructure is particularly challenging because the majority of the Federally assisted highway programs are administered by States that have broad flexibility in deciding how to use their funds, which projects to select, and how to implement them. DOT must develop improved tools and techniques to help States allocate scarce resources more efficiently and to provide effective oversight of Federal investments through the use of data management systems and performance measures. An effective Bridge Management System supplies analyses and summaries of data, uses mathematical models to make forecasts and recommendations, and provides the means by which alternative policies and programs may be efficiently considered. In FY 2012, FHWA used a Bridge Management System questionnaire to assess current practices in cooperation with its State DOT counterparts. Forty states are using a Bridge Management System to store bridge information. Feedback from the questionnaire is being reviewed to develop targeted strategies to further advance Bridge Management System principles and practices.

In addition, there are more than 3,800 lane-miles of roads that provide access to our national parks, forests, recreation sites, and Federal and tribal lands. In FY 2014, FHWA anticipates that the condition of approximately 70 bridges and 2,000 lane-miles of road will be improved using Federal Lands and Tribal Transportation Program (FLTTP) funds.

Past research efforts have helped reduce hazard risks to highways and bridges and ensure that highway infrastructure remains operational during and after a hazard event. Studies were conducted to advance the understanding of the effects of flooding, scour, and coastal inundation on bridges and the development of measures to control bridge vibrations caused by wind. Research is now under way to develop technologies and methodologies for a number of major hazards, including flooding and bridge scour, coastal inundation, wind and hurricanes, earthquakes, and terrorism.

HOW OUTCOMES WILL BE ACHIEVED

Under MAP-21, the NHS was redefined to reflect highways of national significance; national measures of condition and performance on the NHS will be developed. States will be required to set targets for each of the national measures, and it is anticipated that States will make significant progress toward the achievement of their targets. As a result, minimum condition levels will be established for Interstate pavements before allowing NHPP funds to be spent to meet other needs. States are also required to maintain their NHS bridge conditions so that the deck area on bridges categorized as structurally deficient does not exceed 10 percent.

Improvements in condition data in future years are anticipated as a result of bridge investments under the *American Recovery and Reinvestment Act of 2009,* lower bridge construction unit costs in 2009 and 2010, and the use of an additional $1 billion in dedicated Highway Bridge Program funds. FHWA will provide targeted technical assistance to States based on their current use of Bridge Management Systems. Progress will take time and will require State DOT leadership. FHWA expects that States will improve the level of compliance with the National Bridge Inspection Standards as a result of the agency's enhanced oversight activities.

MAP-21 also requires the development of pavement and bridge condition performance measures and targets that support the FLTTP. Before allocations are made, Federal participants will be required to submit program proposals that describe how the national goals, as well as the goals of Federal Land Management Agencies, are supported by the use of the funds.

PRIMARY ACTIVITIES SUPPORTING THIS OUTCOME

National Highway Performance Program funds will support important activities associated with implementing MAP-21 including the:

- Development of guidance and/or regulations that require each State to develop a risks- and performance-based Asset Management Plan for the NHS to improve asset condition and system performance;
- Consolidation of multiple categories into one National Highway Program that includes dedicated funding for maintaining and improving the condition and performance of the expanded NHS and for improvements to all Federal-aid highways and bridges on any public road; and,
- Support for State and local transportation agencies as they work to apply innovative revenue generation, procurement, and project finance strategies to support major infrastructure enhancements to achieve a state of good repair in a manner that is effective, efficient, and in the public interest.

Surface Transportation Program funds will be used to:

- Improve highway infrastructure condition and performance;
- Construct, reconstruct, rehabilitate, resurface, restore, and preserve improvements to highways, including designated routes of the Appalachian Development Highway System and local access roads;
- Inspect and evaluate bridges, tunnels, and other highway assets, as well as provide training for bridge and tunnel inspectors; and,
- Develop and implement State Asset Management Plans for the NHS.

Research, Technology, and Education Program (RTEP) funds will be used to improve knowledge, specifications, design methods, guidance, tools, technologies, and other products that will enable:

- Improvement in the safety-related attributes and characteristics of highway infrastructure;
- Construction of more durable highway infrastructure that minimizes: the duration and frequency of lane closures for both initial construction and future maintenance and rehabilitation measures; and the life-cycle costs of the infrastructure from both an economic and environmental perspective; and,
- More effective management of infrastructure assets through the application of accurate performance prediction, comprehensive condition assessment, and data-driven decision-making.

FLTTP funds will be used to complete construction and engineering projects that will: improve multimodal access, support increasing visitation, and improve visitor experiences at recreational areas on public lands; and expand economic development in and around Federal lands, while preserving the environment and reducing congestion at our national treasures. Tribal Transportation Program funds will be used for transportation planning, research, maintenance, engineering, rehabilitation, and construction of transportation facilities that provide access to, are within, or are adjacent to tribal lands.

ENABLING LEGISLATION AND REGULATIONS

MAP-21 of 2012 (P.L. 112–141) places a new emphasis on national transportation goals, increases the accountability and transparency of the Federal Highway program, and improves transportation investment decision-making through a performance-based approach. The key programs include the NHPP (23 U.S.C. 119), STP (23 U.S.C. 133–134), and FLTTP (23 U.S.C. 202). The *Transportation Research and Innovative Technology Act of 2012* provides RTEP program funds (23 U.S.C. 502–503).

RESOURCES, TRAINING, AND SKILLS

- Resources—The consolidation of the NHPP into one program will greatly improve the efficiency of the Federal aid-project delivery process. FHWA has established an Office of Transportation Performance Management to provide guidance and develop institutional capacity in partnership with the States.
- Training—FHWA provides leadership, training, educational materials, and resources to improve the quality of our highway system and its intermodal connections. FHWA provides training, resource materials, and educational opportunities to the surface transportation community to develop both core competencies and new skills, enable technology transfer, and share best practices.
- Skills—To implement MAP-21, FHWA staff will need to further develop their capabilities in asset management, performance measurement, data analysis, and project benefit-cost analyses.

PARTNERS

FHWA's partners in this effort include State and local Departments of Transportation, universities, the Transportation Research Board (TRB), and associations such as the American Association of State Highway and Transportation Officials (AASHTO).

RESPONSIBLE OFFICIALS

John Baxter, Associate Administrator, Office of Infrastructure; Joyce Curtis, Associate Administrator, Office of Federal Lands Highway; and Michael Trentacoste, Associate Administrator, Office of Research, Development and Technology, Federal Highway Administration.

TRANSIT ASSETS (FTA)

WHY IS THIS EFFORT NECESSARY?

FTA found that 29 percent of transit capital assets nationwide are in marginal or poor condition. This directly translates to a degradation of transit systems' reliability and performance. The current condition is partially attributable to the level of resources available for reinvestment in transit infrastructure from all sources of government. In some instances, however, it is also the result of transit agencies not adequately managing existing capital funds. MAP-21 establishes a new National Transit Asset Management System, requiring a strategic approach to asset management by FTA grantees and prioritizing state of good repair in investment discussions. MAP-21 also creates the first stand-alone initiative written into law that is dedicated to repairing and rebuilding the Nation's transit systems into a state of good repair. These funds will help public transit operate safely, efficiently, reliably, and sustainably to improve mobility, reduce congestion, and encourage economic development.

STRATEGIC OUTCOME AND SUPPORTING PERFORMANCE MEASURES

Increased percentage of transit assets in good condition.

Reduce the Backlog of Transit Capital Assets in Need of Replacement or Refurbishment (as Defined by an Estimated Condition Rating of 2.5 or Lower) to No More Than $76.3 Billion* by the End of 2014

	2010**	2011	2012	2013	2014
Target	$77.7B(r)	$77.0B(r)	$76.8B(r)	$76.5B(r)	$76.3B
Actual	$77.7B*	N/A	N/A		

* Preliminary; (r) Revised

** Actual data for the 2010 state of good repair backlog of transit capital assets in need of replacement or refurbishment has not been published, but will be released as part of the 2013 DOT Conditions & Performance Report to Congress. FTA's baseline for this metric was developed using 2008 data and reported in the 2010 Conditions & Performance Report. It was updated with 2009 data in the 2010 FTA National State of Good Repair Assessment study. Data collection improvements to support annual reporting of this metric are being implemented through modifications to the National Transit Database but will not be fully realized until FY 2014 data are reported.

PAST PERFORMANCE AND FUTURE MILESTONES

The 2010 DOT Conditions & Performance Report to Congress (Exhibit 3–23) estimates the replacement value of all U.S. transit assets to be $663 billion. Of these assets, $77.7 billion (2009 dollars) are estimated to be in need of replacement. This estimate is based on pre–Hurricane Sandy data. 2013 estimates will capture the rebuilding estimates related to Hurricane Sandy damage. Past performance, with regard to maintaining existing capital systems in at least adequate condition, has been characterized by consistent underinvestment of close to $2 billion per year. Over time, this has resulted in the current backlog value. FTA has identified several milestones that will need to be achieved to overcome this backlog. First, FTA must implement MAP-21 State of Good Repair formula grants to target additional funding to address this need. Second, FTA must articulate requirements for better asset management through a National Transit Asset Management System. FTA estimates of the reinvestment backlog will continue to improve as these milestones are accomplished, eventually resulting in reliable annual estimates and a better understanding of steps needed for each transit provider to make the most of available capital funds.

Future milestones include:

- Implementing the MAP-21 State of Good Repair formula grants;
- Implementing the MAP-21 requirement to collect transit asset inventory data in FTA's National Transit Database;
- Implementing the MAP-21 requirement to establish a definition of state of good repair, including objective measures for the condition of transit assets; and,
- Implementing the MAP-21 requirement to require all recipients and sub-recipients of FTA funds to have a transit asset management plan.

HOW OUTCOMES WILL BE ACHIEVED

PRIMARY ACTIVITIES SUPPORTING THIS OUTCOME

- Supporting system reinvestment through the grants process;
- Requiring all state of good repair projects to be included in agency asset management plans;
- Collecting and analyzing data to measure progress and benchmark systems;
- Supporting and developing analysis tools for planners;
- Providing technical assistance to grantees;
- Supporting information sharing among industry engineers and capital planning experts to identify best practices and share solutions; and,
- Conducting research.

ENABLING LEGISLATION AND REGULATIONS

Section 5337 of Title 49, U.S.C., authorizes the Secretary to make grants to assist State and local government authorities in financing capital projects to maintain public transportation systems in a state of good repair, provided such projects are included in a transit asset management plan of the recipient.

RESOURCES, TRAINING, AND SKILLS

- IT—State of Good Repair relies on FTA's National Transit Database and on FTA's grants management systems.
- Training—FTA needs to make training and technical assistance in asset management available to both FTA and transit agency staff as modern asset management practices are not widely adopted across the transit industry.
- Skills—FTA particularly needs engineers and economists to address asset management improvement issues. Additional policy and program management staff will be needed to manage new program requirements.

PARTNERS

State and local governments, transit agencies, metropolitan planning organizations, transit industry trade organizations, local decision makers, and the asset management industry.

RESPONSIBLE OFFICIAL

Robert Tuccillo, Associate Administrator/Chief Financial Officer, Federal Transit Administration.

AIRPORT RUNWAYS (FAA)

WHY IS THIS EFFORT NECESSARY?

Periodic maintenance of runways, particularly resurfacing, has proven to be a cost-effective way to delay the need for major runway rehabilitation. FAA funds a broad range of capital infrastructure development at most National Plan of Integrated Airport Systems airports; however, airports are generally responsible for funding periodic and ongoing maintenance. More significant rehabilitation, resurfacing or reconstruction projects may be funded through a variety of funding sources, including Airport Improvement grants, Passenger Facility Charges (PFC) revenues, airport revenues and other funding sources. Deferred or delayed maintenance creates an increased risk of damage to aircraft and is a safety concern for the travelling public. It also increases both the scope and cost of eventual rehabilitation or reconstruction.

STRATEGIC OUTCOME AND SUPPORTING PERFORMANCE MEASURES

Increased percentage of airport runways in excellent, good, or fair condition.[1]

1 FAA has established three categories for runway condition that meet strict standards for the operational safety of aircraft transiting runways at high speed. Runways in fair condition are fully compliant with those standards, but may require a higher level of surveillance and day-to-day maintenance than runways in good or excellent condition.

Maintain Runway Pavement in Excellent, Good, or Fair Condition for 93 Percent of the Paved Runways in the National Plan of Integrated Airport Systems Through 2014 [2]

	2010	2011	2012	2013	2014
Target	93.00%	93.00%	93.00%	93.00%	93.00%
Actual	97.20%	97.40%	97.5%		

PAST PERFORMANCE AND FUTURE MILESTONES

FY 2012 performance results indicate that the Nation's airports continue to remain in a state of good repair. FAA was able to meet the FY 2012 and prior fiscal year targets due to the success of multiple efforts by the agency and the Nation's airports. Maintaining runway pavement conditions requires careful coordination, often years in advance, of a runway rehabilitation project. Projects must be timed carefully, regardless of whether they involve phased reconstruction of a single-runway airport or the sequential resurfacing of multiple runways over a period of several years. Some of the nation's largest airports resurface their runways over on an established revolving basis. As a result, at times, the FAA is able to exceed the goal. However, this does not necessarily represent a substantial trend. For major reconstruction, runways must typically be taken out of service for a full construction season or longer. It can be particularly challenging to rehabilitate one runway while keeping intersecting runways operational. FAA works with airports to ensure that the system never has too many runways out of service at any given time.

HOW OUTCOMES WILL BE ACHIEVED

PRIMARY ACTIVITIES SUPPORTING THIS OUTCOME

- Development of Airport Pavement and Construction—Conduct research in airport pavement to develop new pavement designs and construction techniques.
- Maintenance of Existing Pavement—Ensure that Airport Improvement Program funding is targeted to projects to maintain pavements in excellent, good, or fair condition.

ENABLING LEGISLATION AND REGULATIONS

- Title 49, CFR, Transportation; Aviation Programs; Part B–Airport Development and Noise. Chapter 471–Airport Development:
  - Section 47102(3)(A)
  - Section 471053
- Title 49, CFR, Transportation; Part 18, Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments;
- Title 14, CFR, Part 139, Certification of Airports;
- Advisory Circular 150/5320–17, Airfield Pavement Surface Evaluation and Rating Manual;
- Advisory Circular 150/5380–6B, Guidelines and Procedures for Maintenance of Airport Pavements; and,
- Advisory Circular 150/5380–7A, Airport Pavement Management Program.

RESOURCES, TRAINING, AND SKILLS

- IT—FAA manages this process using several critical resources, including the planning module within the System of Airports Reporting (SOAR), which it uses to manage the entire National Plan of Integrated Airport Systems. The agency also uses a number of technical resources to evaluate the Pavement Condition Index.
- Training—FAA provides initial and recurrent training for airport certification safety inspectors and civil and structural engineers.
- Skills—FAA staff responsible for this effort include civil and structural engineers, airport certification safety inspectors, airport planners, and grant administrators.

PARTNERS

FAA's internal partners in this effort include Regional Airports Divisions and Airports District Offices partner with individual airports to identify poor or failed pavements. The Air Traffic Organization helps evaluate and minimize the capacity and delay impacts resulting from runway construction projects and helps communicate temporary closures. The Aircraft Certification Service helps assess the impact of pavement conditions on aircraft. The William J. Hughes Technical Center assists with a broad range of pavement research. External partners include State aeronautical agencies, aviation industry associations, airlines, and other aeronautical user groups.

RESPONSIBLE OFFICIAL

Christa Fornarotto, Associate Administrator for Airports, Federal Aviation Administration.

NORTHEAST CORRIDOR ASSETS AND INFRASTRUCTURE (FRA)

WHY IS THIS EFFORT NECESSARY?

Federal investment in transportation infrastructure is essential to increasing the Nation's economic productivity and connecting a diverse population to employment and commerce. Amtrak's Northeast Corridor, the backbone of the transportation network in the Northeastern United States, connects millions of Americans through intercity, regional, and commuter passenger rail service that links Boston, New York City, Philadelphia, and Washington, D.C. Years of limited investment and deferred maintenance have increased the state of good repair backlog to $5.5 billion. Maintaining assets and infrastructure in good condition ensures the safety and reliability of these services, improves trip times, and enhances the overall passenger experience.

2 This metric was chosen because if runway pavement is neglected, severe deterioration can cause damage to airframes, engines and landing gear, unnecessarily compromising safety and leading to higher rehabilitation costs.

STRATEGIC OUTCOME AND SUPPORTING PERFORMANCE MEASURES

Eliminate Amtrak's state of good repair backlog on the Northeast Corridor.

Increase the Cumulative Percent of Funds Obligated to Complete the Northeast Corridor State of Good Repair Plan* to 6 Percent by the End of 2014

	2010	2011	2012	2013	2014
Target	N/A**	N/A	0%	0%	6%
Actual	N/A	N/A	0%		

* Amtrak, April 15, 2009

** Not applicable—FRA had not established and did not track this measure before FY 2012.

PAST PERFORMANCE AND FUTURE MILESTONES

Since the President's FY 2012 budget request, FRA has been committed to reducing the state of good repair backlog for Amtrak's Northeast Corridor. FRA expects to obligate $328 million in FY 2014 for state of good repair projects on the Northeast Corridor. Combined with more than $950 million in High-Speed and Intercity Passenger Rail Program (HSIPR) capital grants for the Northeast Corridor, these activities will result in substantial planning, design, and construction activities that will improve nearly all aspects of the corridor's infrastructure and operations (including stations, track, bridges, equipment, and catenary). By accelerating these investments from Amtrak's original State of Good Repair Plan, FRA plans to help eliminate the backlog by FY 2025.

HOW OUTCOMES WILL BE ACHIEVED

PRIMARY ACTIVITIES SUPPORTING THIS OUTCOME

FRA's FY 2014 Current Passenger Rail Service program, part of the National High Performance Rail System, will provide dedicated funding to implement Amtrak's State of Good Repair Plan to improve the Northeast Corridor. FRA funded similar projects in the past through Amtrak capital grants and the Capital Assistance for High-Speed Rail Corridors and Intercity Passenger Rail Service program. FRA is currently overseeing these grants and projects to ensure that they are delivered on time and within budget.

ENABLING LEGISLATION

- The *Passenger Rail Investment and Improvement Act of 2008* authorizes the appropriation of funds for Amtrak capital expenses, including state of good repair projects on the Northeast Corridor, which have been or will be funded through the *American Recovery and Reinvestment Act of 2009,* the annual Department of Transportation Appropriations Acts for fiscal years 2010 through 2012, and the FY 2013 and 2014 budget requests for the Department of Transportation.

RESOURCES, TRAINING, AND SKILLS

- IT—FRA utilizes the GrantSolutions and Delphi financial management systems to manage its grant processing activities and to obligate funds, respectively.
- Training—FRA staff associated with this goal will need training related to project management and oversight, contracting, and capital cost forecasting.
- Skills—FRA staff working on this goal include: transportation analysts, engineers, economists, rail system planners, environmental specialists, station planners, financial management specialists, and grant management specialists.

PARTNERS

FRA's partners in this effort include States, Amtrak and other railroad operators, freight railroads, municipal planning organizations, transit agencies, passenger rail advocates, and the disability community.

RESPONSIBLE OFFICIAL

Paul Nissenbaum, Associate Administrator for Railroad Policy and Development, Federal Railroad Administration.

STRATEGIC GOAL:

ECONOMIC COMPETITIVENESS

ECONOMIC COMPETITIVENESS

Promote transportation policies and investments that bring lasting and equitable economic benefits to the Nation and its citizens

MAXIMIZING ECONOMIC RETURNS ON POLICIES AND INVESTMENTS—HIGHWAYS (FHWA)

WHY IS THIS EFFORT NECESSARY?

Highway congestion adversely affects the Nation's economy, communities, and quality of life. According to the *2011 Urban Mobility Report*, traffic congestion continues to worsen in American cities of all sizes, creating a $101 billion annual drain on the U.S. economy in the form of 4.8 billion lost hours resulting from travel delay and 1.9 billion gallons of wasted fuel. Congestion caused the average peak-period traveler to spend an extra 34 hours of travel time and to consume an additional 14 gallons of fuel annually, which amounts to a cost of $713 per traveler. While automobile and truck congestion currently imposes a relatively small cost on the overall economy (about 0.6 percent), the cost of congestion is growing faster than Gross Domestic Product (GDP). If current trends continue, congestion is expected to impose a larger proportionate cost in the future. The cost of congestion has risen at a rate of almost 7 percent per year over the past 25 years, which is more than double the growth rate of GDP.

Highway congestion may be addressed through operational improvements or capacity additions. However, traditional funding sources are often inadequate to support the implementation of major sustainable transportation projects. Innovative financing and revenue generation options can sometimes offer a way to bridge the gap between the currently available funds and investment requirements. Federal credit support from sources such as the Transportation Infrastructure Finance and Innovation Act (TIFIA) program can provide tremendous leveraging opportunities. In addition, public-private partnerships can attract private sector financial participation in major, costly, and complex projects.

Over the next 40 years, the U.S. population is expected to grow by 43 percent and the GDP is expected to almost triple. To support this growth, the demand for both freight and passenger transportation is expected to increase by about two-and-a-half times by 2050. Maintaining and preserving an efficient transportation system is critical to maintaining the competitiveness of our economy. MAP-21 establishes an expanded NHS that more comprehensively supports economic activity and quality of life. While the expanded NHS comprises 53 percent of U.S. highway border crossings, 98 percent of the value of total truck trade with Canada and Mexico moves on this network. The programs described herein also support President Obama's goal of doubling exports over the next five years.

STRATEGIC OUTCOME AND SUPPORTING PERFORMANCE MEASURES

Maximize economic returns on transportation policies and investments.

Increase Travel Time Reliability in Urban Areas as Measured by a Reduction in the Travel Time Index to No More Than 1.20 in 2014

FY	2010	2011	2012	2013	2014
Target	1.17	1.21	1.21	1.21	1.20
Actual	1.21	1.21	1.20		

Maintain Travel Time Reliability in Freight Significant Corridors At or Below 14.7 Percent in 2014

FY	2010	2011	2012	2013	2014
Target	15.0%	15.0%	15.0%	14.8%	14.7% (r)
Actual	13.7%	13.8%	13.5%		

(r) Revised target

PAST PERFORMANCE AND FUTURE MILESTONES

The Travel Time Index (TTI) represents the extra time a driver spends in traffic during congested traffic as compared to light traffic. A TTI of 1.20 means that a trip that normally takes 20 minutes in light traffic would take 24 minutes, or 4 minutes longer, on average in congested traffic. Therefore, the lower the TTI the better.

Since peaking in urban areas at 1.24 in FY 2007, the TTI declined to 1.19 in FY 2009 during a period in which travel nationwide also declined following the economic recession. In FY 2010, the TTI increased to 1.21, due to a return to normal levels of traffic, and remained at this level during FY 2011. In FY 2012, the TTI declined slightly to 1.20. The recent trends in TTI suggest that traffic congestion has improved slightly overall in these urban areas, even though significant delay from non-recurring events such as traffic crashes still does occur.

Travel Time Reliability in key freight corridors is derived from measured commercial vehicle average speeds for 25 interstates carrying significant freight volumes annually. The Buffer Index, expressed as a percentage, represents the extra time, or time cushion, that would have to be added to the average travel time to ensure on-time arrival 95 percent of the time. In FY 2011, travel time reliability on freight corridors remained steady at 13.8 percent, a slight increase over FY 2010 and the same as FY 2009. Travel time reliability on freight corridors improved slightly in FY 2012 by declining to an average of 13.5 percent.

Past congestion reduction efforts have led to: increased availability of 511 traveler information telephone service for nearly 75 percent of the American public by 2013; establishment of the requirement for a Real-Time System Management Information program; development of the Freight Analysis Framework; deployment of surface transportation weather monitoring infrastructure in 39 States, five local agencies, and four Canadian provinces; development, testing, evaluation, and implementation of innovative adaptive control, corridor management, and congestion pricing strategies; and greater emphasis on improving reliability in major freight corridors, international border crossings, and intermodal connectors. Future efforts will support the continued implementation of operations-based congestion reduction strategies in the Nation's largest metropolitan areas, increasing the availability of real-time traveler information, and a focus on improving reliability in major freight corridors, international border crossings, and intermodal connectors.

Previous research activity led to the development of a model that links population, freight demand, driver behavior, and other data to vehicle-miles traveled (VMT). Federal, State, and local agencies are currently using the model to forecast VMT and perform a variety of scenario analyses that aid in planning and decision-making. Metropolitan planning organizations and other public and private entities have gained valuable insights during the model development and its subsequent publication and use.

FHWA has conducted targeted outreach to foreign transportation agencies and international organizations for information and technology exchange consistent with U.S. interests and DOT priorities. Examples include information sharing on Information Technology Systems (ITS) with Brazil; information exchange on livability programs with Sweden and China; cooperation with Netherlands on safety and performance management; information sharing with Spain regarding innovative finance methods; and broad-based participation in the World Road Association.

HOW OUTCOMES WILL BE ACHIEVED

PRIMARY ACTIVITIES SUPPORTING THIS OUTCOME

MAP-21 requires DOT to establish a national freight network and develop a national freight strategic plan, which will be in effect a National Freight Policy. These actions will guide investment decisions subject to the Secretary's discretion, provide States with a national perspective for their planning effort, influence State freight mobility decisions, and provide context to the potential increase of the Federal share for freight-oriented projects. Further, DOT is directed to encourage each State to establish a freight advisory committee and develop a freight plan that provides comprehensive strategies for immediate and long-range activities and investments with respect to freight. This is particularly important since States now have broadened flexibility to use Federal funding to improve performance on the designated national freight network. Lastly, DOT will develop new and improve existing tools to support an outcome-oriented, performance-based approach to evaluate proposed transportation freight projects.

National Highway Performance Program funds will be used to:

- Establish techniques to measure congestion and assess the performance of the highway system, including measuring the relationship between freight movement and congestion;
- Establish techniques and tools to strengthen routine traffic operations and control practices, and also to proactively manage the transportation system during disruptions such as traffic incidents, work zones, adverse weather, special events, and emergency situations;
- Provide useful, real-time information to travelers; and,
- Investigate and implement innovative techniques that better balance transportation supply and demand through ridesharing, parking demand management, and congestion pricing.

Surface Transportation Program funds will be used to:

- Establish techniques and tools, including infrastructure-based ITS, to strengthen routine traffic operations and control practices and to proactively manage the transportation system during disruptions such as traffic incidents, work zones, adverse weather, special events, and emergency situations;
- Provide useful, real-time information to travelers; and,
- Investigate and implement innovative techniques that better balance transportation supply and demand through ridesharing, parking demand management, and congestion pricing.

Research, Technology, and Education Program funds will be used to:

- Develop and promote techniques to measure congestion and to assess the performance of the highway system;
- Develop techniques to measure the role that freight movement plays in congestion, the effects of congestion on interstate commerce, and the effectiveness of strategies for reducing freight operations during congested periods without disrupting the economy;
- Develop new tools and improve existing tools to support an outcome-oriented, performance-based approach to evaluate proposed freight-related and other transportation projects;
- Develop techniques and tools to proactively manage the transportation system during disruptions such as traffic incidents, work zones, adverse weather, special events, and emergency situations;
- Develop and share successful techniques for providing useful, real-time information to travelers;
- Provide guidance materials and tools to decision-makers and senior officials that enable further regional coordination and collaboration activities;
- Implement outreach and capacity-building programs focused on innovative project finance, revenue generation, and procurement strategies;
- Provide tailored technical assistance to advance the financing of major projects and ensure that stewardship protocols related to cost estimates, financing, revenue generation, and procurement practices are in place;
- Establish and maintain information-sharing relationships with foreign partners based on identified U.S. interests;
- Share U.S. practices through World Road Association technical committees and high-level management of its safety-related undertakings; and,
- Coordinate DOT-wide input to the National Export Initiative, including participation in inter-agency groups focusing on identification of export opportunities in key markets.

FHWA will also develop analytical tools to assess innovative finance and revenue generation strategies, as well as provide resources that support State and local transportation agencies as they work to apply innovative revenue generation, procurement, and project finance strategies to support major infrastructure improvements. With MAP-21, TIFIA can now provide up to $17 billion in Federal credit support to eligible infrastructure projects. For some projects, TIFIA provides the only path forward to a viable plan of finance. For example, the $150-million TIFIA loan approved by the Department in June 2012 was critical to delivery of the Presidio Parkway project in California. This project will provide a much-needed update and expansion of the road connecting San Francisco with communities on the other side of the Golden Gate Bridge.

Funding from several sources for workforce development will enable FHWA to boost the development of the Nation's highway construction industry workforce through the On-the-Job Training/Supportive Services program and expand efforts to assist certified Disadvantaged Business Enterprise firms in becoming competitive when competing for highway and bridge construction contracts through the FHWA Disadvantaged Business Enterprise Supportive Services program. The On-the-Job Training/Supportive Services program's targeted populations include women, minorities, and disadvantaged individuals who are provided training and apprenticeship opportunities designed to move them into journey-level positions in skilled and semi-skilled crafts. These groups are among those that are underrepresented in highway construction. Further, many veterans returning to the civilian workforce are in need of training. The goal of the Disadvantaged Business Enterprise Supportive Services program is to achieve a level playing field in a competitive environment where the effects of discrimination are absent and small businesses have a fair chance to participate in DOT-assisted contracts without contending against discriminatory barriers related to race, color, gender, or national origin.

ENABLING LEGISLATION AND REGULATIONS

MAP-21 places a new emphasis on national transportation goals, increases the accountability and transparency of the Federal Highway program, and improves transportation investment decision-making through a performance-based approach. The key programs include the NHPP (23 U.S.C. 119), STP (23 U.S.C. 133–134), and FLTTP (23 U.S.C. 202). MAP-21 also amends existing law to allow for national freight policy and planning requirements (23 U.S.C. 167). The *Transportation Research and Innovative Technology Act of 2012* provides RTEP program funds (23 U.S.C. 502–503) and Training and Education funds (23 U.S.C. 504). If States use NHPP, STP, Congestion Mitigation and Air Quality (CMAQ), and HSIP program funds for workforce development, training, and education, then the Federal share of funds used for this purpose may increase up to 100 percent.

RESOURCES, TRAINING, AND SKILLS

- Training—FHWA will continue to develop and deliver skill-building training to partner organizations and individuals involved in improving and managing the performance of the highway system, particularly with respect to emerging areas such as congestion pricing and freight management.
- Skills—A wide variety of disciplines are needed, including engineering, traffic management and control, freight logistics and management, innovative financing, economic analysis, data collection and management, modeling, and emergency response.

PARTNERS

Partners include State and local DOTs, metropolitan planning organizations, American Association of State Highway and Transportation Officials, first responder community, freight community, academia, foreign transportation agencies, the Transportation Research Board, U.S. Department of State, U.S. Department of Commerce, U.S. Trade and Development Agency, U.S. Embassies, and the World Road Association.

RESPONSIBLE OFFICIALS

Jeff Lindley, Associate Administrator, Office of Operations; and David Kim, Associate Administrator, Office of Policy and Governmental Affairs, Federal Highway Administration.

MAXIMIZING ECONOMIC RETURN—HIGH-SPEED INTERCITY PASSENGER RAIL (FRA)

WHY IS THIS EFFORT NECESSARY?

High-performance passenger and freight rail play an essential role in maintaining and improving the economic vitality of America's cities and metropolitan regions, where population and economic growth require mobility options. High-performance rail plays a key role in America's multimodal transportation system by offering faster travel times, better reliability, more frequent trains, and seamless connections to other modes of transportation. This expanded and improved transportation network will help provide the additional capacity and travel options necessary to serve America's growing population and economic activity. In addition, investment in intercity passenger rail will revitalize domestic rail manufacturing and supply industries, and create highly skilled, well-paying American jobs.

STRATEGIC OUTCOME AND SUPPORTING PERFORMANCE MEASURES

The following outcomes and performance measures support DOT's Agency Priority Goal—advancing the development of passenger rail in the United States—and are not specifically included with DOT's strategic goals.

Agency Priority Goal: Achieve initial construction on Federally funded corridor programs and individual construction projects.

Cumulative Number of Corridor Programs That Achieve Initial Construction

	2010	2011	2012	2013	2014
Target	N/A	3	4	7	8
Actual	N/A	3	4		

Cumulative Number of Individual Construction Projects That Achieve Initial Construction

	2010	2011	2012	2013	2014
Target	N/A	8	22	36	46
Actual	N/A	8	27		

N/A—FRA had not established and did not track this measure prior to FY 2011.

PAST PERFORMANCE AND FUTURE MILESTONES

FRA has obligated more than $9 billion for high-speed and intercity passenger rail projects. In addition, FRA awarded nearly $800 million for procurement of state-of-the-art, American-made locomotives and rail cars. Moreover, FRA provided a $563-million loan to Amtrak for procurement of 70 high-performance locomotives for the Northeast Corridor and Keystone Corridor. As of the end of FY 2012, four corridor programs and 27 individual construction projects had achieved initial construction.

PRIMARY ACTIVITIES SUPPORTING THIS OUTCOME

FRA's National High Performance Rail System contains two programs—Current Passenger Rail Service and the Rail Service Improvement Program—that support planning and developing high-speed and intermodal rail corridors and terminal areas, developing multimodal stations, facilitating the standardization and procurement of rail equipment, and maintaining critical rail assets and infrastructure. Many of these initiatives, as well as projects currently under way, began under the Capital Assistance for High-Speed Rail Corridors and Intercity Passenger Rail Service program and Amtrak capital and operating grants. Additionally, the Railroad Rehabilitation and Improvement Financing Program (RRIF) provides direct loans and loan guarantees for eligible rail projects.

As projects move from planning to construction, FRA provides additional technical assistance to grantees. This includes final review of deliverables such as environmental assessments, statements of work, project management and financial plans, and preliminary engineering and final design documentation. With FRA's active participation and concurrence, grantees are able to initiate construction.

To ensure that grantees deliver these construction projects on schedule, within budget, and with their specified scopes and purposes, FRA has established a monitoring program. Project monitoring is a comprehensive review of a grantee's compliance with the grant conditions, as well as an assessment of the grantee's performance in meeting key milestones. Monitoring also provides an opportunity to proactively identify issues and impediments and work with grantees to correct them through technical assistance.

ENABLING LEGISLATION AND REGULATIONS

- The *Passenger Rail Investment and Improvement Act of 2008* authorized the high-speed and intercity passenger rail grants funded under the *American Recovery and Reinvestment Act of 2009* and *Consolidated Appropriations Act, 2010.*
- The *Transportation Equity Act for the 21st Century* (TEA-21), as amended, authorized the Railroad Rehabilitation and Improvement Financing Program to provide direct loans and loan guarantees for eligible rail projects.

RESOURCES, TRAINING, AND SKILLS

- IT—FRA utilizes the GrantSolutions system to administer the application solicitation, evaluation, and award processes for high-speed and intercity passenger rail funding; the Delphi financial management system is used to manage the obligations and outlays processes.
- Training—FRA staff associated with the Economic Competitiveness measures will need training related to project management and oversight, capital cost forecasting, procurement regulations, and contracting.
- Skills—FRA relies on the skills of a wide range of professions, including transportation analysts, engineers, economists, rail system planners, environmental specialists, station planners, financial management specialists, and grant management specialists.

PARTNERS

FRA's partners in this effort include States, Amtrak and other railroad operators, freight railroads, municipal planning organizations, transit agencies, passenger rail advocates, and the disability community.

RESPONSIBLE OFFICIAL

Paul Nissenbaum, Associate Administrator for Railroad Policy and Development, Federal Railroad Administration.

MAXIMIZING ECONOMIC RETURNS—AVIATION (FAA)

WHY IS THIS EFFORT NECESSARY?

The availability of the equipment necessary to provide service may affect the performance of the National Airspace System (NAS). Loss of radar or communications equipment will affect the speed and number of aircraft that can be handled where that loss occurs. The ability of the NAS to continually provide guidance is crucial and affects both safety and capacity. The performance outcomes for the three economic competitiveness measures are linked. NAS On-Time Arrivals are affected by the airport and en-route capacity, which are impacted by the availability of the equipment and facilities supporting that capacity. Collectively, the technology investments funded in support of these efforts enable FAA to move people and goods more efficiently, leading to a more competitive air transportation system.

STRATEGIC OUTCOME AND SUPPORTING PERFORMANCE MEASURES

Maximum economic returns on transportation policies and investments.

Agency Priority Goal: Air traffic control systems can improve the efficiency of airspace.

By September 30, 2013, Replace a 40-Year Old Computer System Serving 20 Air Traffic Control Centers with a Modern, Automated System That Tracks and Displays Information on High-Altitude Planes

	2010	2011	2012	2013	2014
Target	N/A	2 IOCs*	7 IOCs	11 IOCs	N/A
Actual	N/A	2 IOCs	7 IOCs		N/A

* Initial Operating Capability (IOC) represents the first instance of ERAM operations in the NAS at an En-Route and Oceanic Air Traffic Facility.

Maintain an Average Daily Airport Capacity for Core Airports of 86,835 Arrivals and Departures Through 2014

	2010	2011	2012	2013	2014
Target	101,290	86,606*	86,835	86,835	86,835
Actual	101,668	87,338	88,590		

* This metric was revised in FY 2011 to include a new set of airports, replacing the original 35 Operational Evolution Partnership airports. New targets were set.

Maintain Operational Availability of the National Airspace System (NAS) at 99.7 Percent Through 2014

	2010	2011	2012	2013	2014
Target	99.70%	99.70%	99.70%	99.70%	99.70%
Actual	99.79%	99.72%	99.75%		

PAST PERFORMANCE AND FUTURE MILESTONES

The En Route Automation Modernization (ERAM) System replaces the 40-year-old En Route HOST Computer System used at En Route Air Route Traffic Control Centers around the country to guide airplanes flying at high altitudes. ERAM enables FAA to maximize its use of airspace, substantially increase the number of flights that can be tracked and displayed, and enhance its backup capability.

ERAM is an Agency Priority Goal for the Department of Transportation. This metric measures the number of Air Route Traffic Control Centers that achieve initial operating capability (IOC) on ERAM. FAA met the FY 2012 target by achieving IOC at seven sites. Prior to FY 2012, FAA achieved IOC at two sites. By the end of FY 2012, ERAM was operational in some capacity at nine centers:

- Salt Lake City, UT
- Seattle, WA
- Denver, CO
- Albuquerque, NM
- Minneapolis, MN
- Chicago, IL
- Oakland, CA
- Los Angeles, CA
- Houston, TX

FAA plans to achieve IOC at the remaining 11 sites by the end of FY 2013. The following is the FY 2013 ERAM IOC schedule:

- First quarter FY 2013—Kansas City, MO; New York, NY; and Boston, MA
- Second quarter FY 2013—Indianapolis, IN; Washington, D.C.; Cleveland, OH; and Memphis, TN
- Third quarter FY 2013—Fort Worth, TX; and Atlanta, GA
- Fourth quarter FY 2013—Jacksonville, FL; and Miami, FL

The FY 2012 year-end result for daily airport capacity for Core Airports exceeds the goal. Positive outcomes in FY 2012 are due in part to the completion of runway construction projects ahead of schedule, as well as to more accurate rate-calling on the part of some air traffic facilities. Each of the Core Airport facilities in this measure determines the number of arrivals and departures it can handle for each hour of the day, depending on conditions including weather. In FY 2011, FAA revised the Average Daily Airport Capacity measure to include a new set of airports, the Core Airports, replacing the original 35 Operational Evolution Partnership airports. The revised list of airports includes the current most congested airports in the country.

The FY 2012 results exceed the adjusted operational availability target. FAA has implemented policies and procedures for maintaining and restoring navigation and communication equipment in order to minimize downtime. The goal for Adjusted Operational Availability is expected to remain at 99.7 percent.

HOW OUTCOMES WILL BE ACHIEVED

PRIMARY ACTIVITIES SUPPORTING THIS OUTCOME

- Develop requirements for existing technology to transition into the NAS for NextGen;
- Research and evaluate future capacity demands; and,
- Perform ERAM-related activities.

ENABLING LEGISLATION AND REGULATIONS

- PL 112-95: Title II: NextGen Air Transportation System and Air Traffic Control Modernization
  - Section 214, Performance Metrics
- PL 112-95: Title IX: Federal Aviation Research and Development
  - Section 906. Airport cooperative research program
  - Section 915, Wake turbulence, volcanic ash, and weather research

RESOURCES, TRAINING, AND SKILLS

- IT—System-Wide Information Management, Traffic Flow Management System.
- Training—Project Management Certification, Air Traffic Controller Training, and Technical Operations Training.
- Skills—Engineers, project managers, air traffic controllers, airway transportation specialists, computer specialists, budget analysts, contracting specialists, logistics specialists, and program analysts.

PARTNERS

FAA Air Traffic Organization's Safety and Technical Training organization supports the work necessary to ensure the safe introduction of ERAM capabilities to the NAS, and to support development of the necessary material to train the Air Route Traffic Control Centers workforce on ERAM operations.

FAA Air Traffic Organization service units support the successful deployment (En-Route Air Route Traffic Control Centers sites), integration (Terminal sites), and maintenance (Technical Operations personnel within each facility) of ERAM.

FAA Office of Aviation Safety is responsible for supporting the work necessary to ensure the safe introduction of ERAM capabilities to the NAS, including development and approval of safety documents; the National Air Traffic Controllers Association supports the collaborative design, testing, and deployment activities of ERAM to the NAS. National Air Traffic Controllers Association also provides national-level input on program direction, training materials, and implementation strategies.

Other partners include the Air Line Pilots Association, Air Transport Association of America, Aircraft Owners and Pilots Association, National Business Aviation Association, DOD, NASA, academic institutions, and corporate entities.

RESPONSIBLE OFFICIAL

J. David Grizzle, Chief Operating Officer, Air Traffic Organization, Federal Aviation Administration.

MAXIMIZING ECONOMIC RETURNS—SAINT LAWRENCE SEAWAY SYSTEM AVAILABILITY (SLSDC)

WHY IS THIS EFFORT NECESSARY?

The binational Saint Lawrence Seaway is the international shipping gateway to the Great Lakes, connecting the heartland of North America with the world. Commercial transportation on the Great Lakes St. Lawrence Seaway System serves as competition to other maritime trade routes as well as other transportation modes, which benefits the Nation in lowering consumer prices of finished goods and raw materials, and reducing roadway and railway congestion. Each Seaway-size vessel carries approximately 30,000 tons, the equivalent of 963 trucks or 301 rail cars.

The Saint Lawrence Seaway Development Corporation (SLSDC) is directly responsible, by Federal statute and international agreements, for the operations and maintenance of the U.S. portion of the Saint Lawrence Seaway. SLSDC is charged with ensuring a safe, reliable, available, and efficient commercial maritime transportation system for the movement of trade to and from the Midwest region of North America. Any changes to the current model of U.S. Seaway operations would require not only Congressional action but also revised international agreements with Canada.

The Saint Lawrence Seaway directly serves an eight-state, two-province region that accounts for 28 percent of the U.S. Gross Domestic Product (GDP), 50 percent of North America's manufacturing and services industries, and is home to nearly one-quarter of the continent's population. In fact, maritime commerce on the Great Lakes Seaway System impacts 128,000 U.S. jobs with associated benefits of $18.1 billion in annual business revenue from transportation firms and $9.7 billion in annual wages and salaries[1], and provides approximately $3.6 billion in annual transportation cost savings compared to the next least expensive mode of transportation[2]. Over its history, the Saint Lawrence Seaway has handled more than 2.6 billion metric tons of cargo valued in excess of $375 billion. The SLSDC remains dedicated to promoting the economic and environmental benefits of the marine mode, attracting new cargoes to the Seaway, and leveraging technology to enhance the system's performance and safety.

SLSDC's two programs—Agency Operations and Asset Renewal Program (ARP)—address this strategic objective. There are no other Departmental or U.S. Federal agencies responsible for this specific measure. The Canadian Saint Lawrence Seaway Management Corporation (Canadian SLSMC) is directly responsible for a similar measure for the Canadian sectors and locks of the St. Lawrence Seaway.

1 The Economic Impacts of the Great Lakes St. Lawrence Seaway System, Martin Associates, October 2011.

2 Great Lakes Navigation System: Economic Strength to the Nation, U.S. Army Corps of Engineers, January 2009.

STRATEGIC OUTCOME AND SUPPORTING PERFORMANCE MEASURES

Maximum economic returns on transportation policies and investments.

Maintain the U.S. Saint Lawrence Seaway System and Lock Availability At 99 Percent Through FY 2014

	2010	2011	2012	2013	2014
Target:	99.0%	99.0%	99.0%	99.0%	99.0%
Actual:	99.8%	99.0%	99.7%		

PAST PERFORMANCE AND FUTURE MILESTONES

In FY 2012, SLSDC successfully met this goal with a system availability rate of 99.7 percent. Factors included in measurable delays are weather, vessel incidents, and lock equipment malfunction. There were 20 hours, 12 minutes of delays during FY 2012, with vessel-related delays causing approximately 52 percent of the downtime. Of the delay factors that cause system non-availability, the SLSDC has the most control over the proper functioning of its lock equipment. In FY 2012, there were 6 hours, 6 minutes of delays related to lock equipment malfunctioning incidents.

SLSDC continues to refine and improve its operations and maintenance programs to ensure continued success in providing near-perfect system availability to its global commercial users. To that end, SLSDC began its ARP in FY 2009 to address the Saint Lawrence Seaway's long-term asset renewal needs, which include the two U.S. Seaway locks (Eisenhower and Snell), connecting channels, operational systems, and other infrastructure assets. These improvements are expected to help reduce the delay hours associated with lock equipment malfunctions. The SLSDC will continue the policies and practices that have produced the current results.

HOW OUTCOMES WILL BE ACHIEVED

PRIMARY ACTIVITIES SUPPORTING THIS OUTCOME

- Providing safe and efficient vessel traffic control and passage through the U.S. locks and waters;
- Maintaining and rehabilitating U.S. Seaway infrastructure;
- Performing safety inspections and ballast water examinations of all foreign-flag vessels;
- Continuing close coordination and involvement with the Canadian SLSMC in all aspects of Seaway operations; and,
- Utilizing and enhancing technology to more efficiently manage vessel traffic control and lock transits.

ENABLING LEGISLATION AND REGULATIONS

- *St. Lawrence Seaway Act,* May 13, 1954 (33 U.S.C. 981, *et. seq.*) (SLSDC enabling legislation).
- Agreements between the United States and Canada concerning the construction and operation of the Saint Lawrence Seaway, July 30, 1952 and August 17, 1954.
- *Port and Tanker Safety Act of 1978* (33 U.S.C. 1229) (provides SLSDC with jurisdictional authority over the U.S. waters and locks of the Saint Lawrence Seaway).
- Saint Lawrence Seaway Regulations (jointly updated each year by the two Seaway agencies).

RESOURCES, TRAINING, AND SKILLS

- IT—The majority of the SLSDC's IT environment falls under the Department's Common Operating Environment. The IT environment also includes the Seaway Global Positioning System/Automatic Identification System and the SLSDC Financial Management System. All SLSDC IT investments are reported in detail through the capital planning process and the Exhibit 53 submission. In addition, the SLSDC shares a Traffic Management System with the Canadian SLSMC for vessel traffic control operations. As part of its ARP, the SLSDC is developing new technologies for the operation and control of the two U.S. Seaway locks.
- Training—The SLSDC provides specific agency training to its operational staff related to emergency response, workplace safety, marine safety, water and wastewater treatment, lock operations, linehandling, and vessel traffic control.
- Skills—Vessel traffic controllers, lock and dam operators, linehandlers, engineers, marine specialists, tugmaster, boat operators, crane operators, electric/electronic mechanics, maintenance mechanics, millwrights, machinists, laborers, pipefitters, welders, carpenters, safety and occupational health officers.

PARTNERS

The SLSDC operates the Saint Lawrence Seaway with the Canadian SLSMC. In addition, the SLSDC coordinates closely with the U.S. Coast Guard on safety, security, and environmental programs.

RESPONSIBLE OFFICIAL

Salvatore Pisani, SLSDC Associate Administrator for Seaway Operations, Massena, N.Y.

A COMPETITIVE AIR TRANSPORTATION SYSTEM RESPONSIVE TO CONSUMER NEEDS (FAA)

WHY IS THIS EFFORT NECESSARY?

On-time performance is a measure of the ability of FAA to deliver services. Reducing delays is one of the biggest challenges facing FAA. Commercial airline passenger delays in the U.S. amount to approximately $10 billion in delay costs each year. The problem is exacerbated by increased traffic and congestion concentrated at several major airports. Adverse weather conditions are a major contributing factor to airport delays. Approximately 70 percent of flight delays are caused by weather. While weather cannot be controlled, FAA can employ new technologies that contribute to more efficient arrival and departure performance, which helps decrease congestion and improve on-time arrival rates. For example, the Traffic Management Advisor contributed to more efficient arrival and departure performance at several large airports including Atlanta, Charlotte, and Newark.

STRATEGIC OUTCOME AND SUPPORTING PERFORMANCE MEASURES

A competitive air transportation system responsive to consumer needs.

Maintain a NAS On-Time Arrival Rate of 88 Percent At Core Airports Through 2014

	2010	2011	2012	2013	20134
Target	88.00%	88.00%	88.00%	88.00%	88.00%
Actual	90.55%	90.41%	92.36%		

PAST PERFORMANCE AND FUTURE MILESTONES

FAA met the NAS on-time performance level for this metric in FY 2012. Relatively good weather, efficient airline scheduling practices, runway construction and maintenance scheduling, as well as low ramp and airport congestion, all contributed to FAA's ability to meet this target. Improved performance is most likely due to the drop in scheduled and unscheduled operations in many major markets in addition to the impact of various FAA initiatives. This has led to less congestion in the NAS, less pressure on the air traffic control system, and improved on-time performance.

To continue to meet NAS on-time targets in the future, FAA plans to begin implementing multi-center Q-routes to create efficient routing structures where needed; continue supporting the commissioning of nine new runway/taxiway projects; continue implementing the New York Area Program Integration Office delay reduction plan milestones; and continue implementing the roadmap for performance-based navigation. Q-routes are published area navigation routes based on a series of waypoints, not constrained by the location of ground-based navigational aid systems. They provide routing structure where conventional routes were not practical and allow for parallel routes where only single routes existed. Q-routes have also increased the capacity to connect major cities more efficiently. Implementation of these routes shortens flight time and reduces operating costs.

HOW OUTCOMES WILL BE ACHIEVED

PRIMARY ACTIVITIES SUPPORTING THIS OUTCOME

- Demonstrate new Automatic Dependent Surveillance-Broadcast (ADS-B) applications;
- Upgrade terminal automation platforms to interface with ADS-B;
- Improve the quality of weather information;
- Begin integrated airspace design and associated activities, including traffic flow analysis and facilitated design and procedures optimization; and,
- Collaborate with domestic and foreign system stakeholders to plan and regulate the flow of air traffic to minimize delays and congestion while maximizing overall efficiency.

ENABLING LEGISLATION AND REGULATIONS

- PL 112-95, Title II: NextGen Air Transportation System and Air Traffic Control Modernization
  - Section 214. Performance metrics
  - Section 211, Automatic dependent surveillance-broadcast services

RESOURCES, TRAINING, AND SKILLS

- IT—System-Wide Information Management, Safety Management and Information System (SMIS).
- Training—Project Management Certification, Air Traffic Controller Training, and Technical Operations Training.
- Skills—Engineers, project managers, air traffic controllers, airway transportation specialists, computer specialists, budget analysts, contracting specialists, logistics specialists, and program analysts.

PARTNERS

FAA partners in this effort include the Air Line Pilots Association, Air Transport Association of America, Aircraft Owners and Pilots Association, National Business Aviation Association, DOD, NASA, academic institutions, and corporate entities.

RESPONSIBLE OFFICIAL

J. David Grizzle, Chief Operating Officer, Air Traffic Organization, Federal Aviation Administration.

U.S. TRANSPORTATION INTERESTS ADVANCED IN TARGETED MARKETS AROUND THE WORLD—BILATERAL AND MULTILATERAL AGREEMENTS (OST)

WHY IS THIS EFFORT NECESSARY?

Both independently and in conjunction with other Federal agencies, DOT works with foreign governments to ensure optimum connectivity of the U.S. transportation system with the global transportation network. The Department works with the Transportation Ministries of its trade partners to share information on policies, procedures, and technical approaches, and in return, DOT learns from its international partners in key subject areas of benefit to U.S. interests (e.g., high speed rail). In order to accomplish its goals, DOT negotiates cooperative agreements with its foreign partners. The Department is active in bilateral and multilateral forums, working toward harmonized and/or compatible regulations and standards, which enable U.S. firms to access foreign markets. The Department also supports the National Export Initiative, focusing on key foreign markets, including China, India, and Brazil, where the U.S. transportation industry may export goods and services to create U.S. jobs. All of these activities directly support the Department's strategic Economic Competitiveness goal.

The Office of International Transportation and Trade in the Office of Aviation and International Affairs is responsible for advising DOT leadership on international transportation policy issues in these areas, and in facilitating the implementation of this policy through ongoing contact with international counterparts. In maintaining ongoing communication and strong relationships with the transportation counterparts of its key trade partners through frequent meetings at home and abroad, DOT leadership is able to advance the Department's international agenda, identify and solve prospective problems in international transportation relationships, and more effectively resolve major disputes.

The Department of Transportation is often called upon to implement international transportation capacity-building programs with partner countries. DOT undertakes these efforts to ensure the safety of the U.S. traveling public abroad, to implement Administration reconstruction initiatives that support core economic relationships with countries affected by war or natural disaster, or more broadly, to provide technical support that may ultimately reinforce economic relationships with emerging markets abroad.

STRATEGIC OUTCOME AND SUPPORTING PERFORMANCE MEASURES

U.S. transportation interests advanced in targeted markets around the world.

Advance DOT Goals with Foreign Governments Through the Conduct of At Least 75 Annual International Trips, Meetings, Conferences, and Other Events At the Secretary, Deputy Secretary, or Under Secretary Level Through 2014

	2010	2011	2012	2013	2014
Target	75	75	75	75	75
Actual	135	185	230		

Establish or Participate in 14 Technology Transfer and Capacity-Building Programs to Improve Training Opportunities for International Transport Ministries to U.S. Transportation Technologies

	2010	2011	2012	2013	2014
Target	N/A	N/A	14	14	14
Actual	N/A	N/A	14		

Reach 3 or More New Bilateral and Multilateral Aviation Agreements to Remove Market-Distorting Barriers to Trade in Transportation Each Year Through 2014

	2010	2011	2012	2013	2014
Target	3	3	3	3	3
Actual	7	4	4		

PAST PERFORMANCE AND FUTURE MILESTONES

The Office of Aviation and International Affairs has exceeded its target of conducting 75 international meetings or events in 2010, 2011, and 2012. This reflects a robust international policy agenda in the Department, including visits by high-level foreign counterparts, events and speaking engagements on international topics, and senior staff missions to key partner countries (during which multiple meetings normally take place). Because of varying situational circumstances in any given year related to these activities, DOT is unable to accurately predict the number of activities in future years, but it is anticipated that the number of trips, meetings, conferences, and other events will exceed the baseline of 75.

FY 2012 is the first year of the technology transfer and capacity-building program performance measure and results tracking. The Department achieved its FY 2021 target by participating in 14 technology transfer and capacity-building programs.

The Unted States has achieved Open Skies with nearly 110 aviation partners and incremental liberalization with others. DOT is continuing its outreach to liberalize aviation relations with partners around the globe including China, Vietnam, South Africa, Mexico, Russia, and the former Commonwealth of Independent States (CIS) republics. A best practices template is also being developed for the implementation of Open Skies agreements to enhance the prompt usability of negotiated rights with minimum governmental intervention.

HOW OUTCOMES WILL BE ACHIEVED

PRIMARY ACTIVITIES SUPPORTING THIS OUTCOME

Transportation interests are advanced in targeted countries around the world through policy development, planning, support of logistics, meeting support, and follow-up on commitments and deliverables on the following types of activities:

- Conducting meetings with high-level foreign counterparts;
- Negotiating sessions with foreign counterparts;
- Speaking engagements at forums, stakeholder group meetings, multilateral organizations, multilateral ministerial meetings, and private sector stakeholder events;
- Participating in recurring international forums with key partners, with a growing emphasis on priority countries under the President's National Export Initiative; and,
- Senior Departmental officials visiting key partner countries.

The technology transfer and capacity-building program is a key component of:

- The Safe Skies for Africa Program;
- In-Country multimodal Iraq team; and,
- In-Country multimodal Afghanistan team.

Transportation interests are advanced in targeted markets around the world through:

- Conducting face-to-face formal negotiations with foreign governments;
- Coordinating with the Department of State in developing U.S. negotiating positions; and,
- Working with U.S. aviation stakeholders to identify liberalization targets and resolve doing business issues.

ENABLING LEGISLATION AND REGULATIONS

49 U.S.C.§ 301 (4), (8); 49 U.S.C.§ 322; 329 (b) 3; 23 U.S.C.§ 506; 49 U.S.C.§ 5312 (c) provide the framework and direction for negotiating international air services agreements.

RESOURCES, TRAINING, AND SKILLS

- Skills—The program requires staff with a mix of skills, with a special focus on international transportation policy development, expertise in protocol and diplomacy, negotiations, communication, and planning.

PARTNERS

Partners include the Department of State; Department of Commerce; aviation community industry groups, including Air Transport Association, National Air Carrier Association, Airports Council International North America; individual airlines; airports; Department of Homeland Security (Transportation Security Administration); the U.S. Trade and Development Agency; and labor unions.

RESPONSIBLE OFFICIAL

Susan Kurland, Assistant Secretary for Aviation and International Affairs, Federal Aviation Administration.

EXPAND OPPORTUNITIES FOR BUSINESSES IN THE TRANSPORTATION SECTOR (OST)

WHY IS THIS EFFORT NECESSARY?

To ensure that small and disadvantaged businesses are provided maximum practicable opportunity to participate in the agency's contracting process pursuant to the Small Business Act.

STRATEGIC OUTCOME AND SUPPORTING PERFORMANCE MEASURES

Expanded opportunities for businesses in the transportation sector, especially small, women-owned and disadvantaged businesses.

Maintain the Percent of Total Dollar Value of DOT Direct Contracts Awarded to Small, Disadvantaged Businesses At 15 Percent or More Through FY 2014

	2010	2011	2012	2013	2014
Target	15%	15%	15%	15%	15%
Actual	14.5%	19.5%	18.08%*		

*Preliminary. SBA has not verified as of the publication date.

Maintain the Percent of Total Dollar Value of DOT Direct Contracts Awarded to Women-Owned Businesses At 6 Percent or More Through FY 2014

	2010	2011	2012	2013	2014
Target	6%	6%	6%	6%	6%
Actual	7.85%	11.1%	8.81%*		

*Preliminary. SBA has not verified as of the publication date.

PAST PERFORMANCE AND FUTURE MILESTONES

The Procurement Assistance Division negotiates fair and reasonable small business goals for the Department of Transportation. The division also works closely with DOT program and procurement officials to assist DOT in meeting those goals. In FY 2011—the most recent year official data was released from the Small Business Administration (SBA)—DOT received a Green rating under the SBA's scorecard criteria. The Green rating is the highest rating an agency can receive. The Office of the Secretary of Transportation continues to work with the Department's Operating Administrations toward small business goal achievement.

The Financial Assistance Division, which administers the Short Term Lending Program, supports DOT's strategic Economic Competitiveness goal by partnering with participating lenders across the country to provide certified small businesses, including disadvantaged business enterprises and women-owned businesses, the opportunity to obtain short-term working capital at a reasonable interest rate in order to increase the number of small and disadvantaged businesses able to compete for and provide goods and services for DOT and DOT-funded transportation-related contracts across the country.

The Regional Partnerships Division, which administers the Small Business Transportation Center Program, partners with (1) business-centered community-based organizations, (2) trade associations, (3) colleges and universities, and (4) chambers of commerce to support the Economic Competitiveness goal. These partnerships create delivery systems that provide comprehensive packages of business training and counseling, technical assistance, and the dissemination of information to transportation-related Disadvantaged Business Enterprises (DBEs) within their regional areas to enable them to increase the number of small and disadvantaged businesses able to compete for and provide goods and services for DOT and DOT-funded transportation-related contracts across the country.

HOW OUTCOMES WILL BE ACHIEVED

PRIMARY ACTIVITIES SUPPORTING THIS OUTCOME

Expanded opportunities for business in the transportation section, especially small, women-owned and disadvantaged business will be supported through:

- Providing local outreach through Small Business Vendors Days;
- Providing national outreach through Small Business Summits, matchmaking events, workshops/presentations, etc.; and,
- Coordinating with resource partners through Small Business Transportation Resource Centers.

ENABLING LEGISLATION AND REGULATIONS

- *Small Business Act* (P.L. 95–507).

RESOURCES, TRAINING, AND SKILLS

- Training—Staff require training in contract administration and Federal small business issues to support the program participants.
- Skills—The program needs a mix of skills, with a special focus on expertise in contracting and small business needs.

PARTNERS

The Office of Small and Disadvantaged Business Utilization (OSDBU) partners with DOT Operating Administrations, DOT procurement officials, OSDBU Short Term Lending Program participating lenders, and OSDBU's Small Business Resource Transportation Centers. OSDBU also partners with Small Business Administration, Procurement Technical Assistance Centers, and Small Business Development Centers nationwide.

RESPONSIBLE OFFICIAL

DeVera Redmond, Supervisory Small Business Specialist, Procurement Assistance Division; and Brandon Neal, Director, Office of Small and Disadvantaged Business Utilization, Office of the Secretary of Transportation.

STRATEGIC GOAL:

LIVABLE COMMUNITIES

LIVABLE COMMUNITIES

Foster livable communities through place-based policies and investments that increase transportation choices and access to transportation services

IMPROVED NETWORKS AND IMPROVED ACCESS (FHWA)

WHY IS THIS EFFORT NECESSARY?

This livable communities goal focuses on the critical need to enhance transportation choices and safety while protecting the environment in rural and urban areas throughout the Nation. By encouraging the development or improvement of multimodal transportation networks with more convenient and affordable choices (particularly for people with special needs) and greater use of alternate modes such as bicycling and walking, DOT will help improve air quality, reduce congestion, and improve roadway safety for all road users.

STRATEGIC OUTCOME AND SUPPORTING PERFORMANCE MEASURES

Improved networks that accommodate pedestrians and bicycles. Improved access to transportation for people with disabilities and older adults.

Increase the Number of States with Policies That Improve Transportation Choices for Walking and Bicycling to 28 or More By the End of FY 2014

	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
Target	N/A	22	26 (r)	27 (r)	28 (r)
Actual	21	24	26		

(r) Revised

Increase the Number of States That Have Developed an Americans with Disabilities Act (ADA) Transition Plan That Is Current and Includes the Public Rights-of-Way to 18 By the End of FY 2014

	FY 2011	FY 2012	FY 2013	FY 2014
Target	9	12	15	18
Actual	13	15		

PAST PERFORMANCE AND FUTURE MILESTONES

DOT issued a policy statement on *Bicycle and Pedestrian Accommodation Regulations and Recommendations* in 2010. This statement signaled an increased commitment to support safe and convenient transportation choices, including walking and bicycling. FHWA has provided funding support for reports, technical assistance, and training related to walking and bicycling. By 2014, DOT and FHWA expect more than half of the States to have policies and plans that support improved transportation choices. Similarly, one of the milestones for implementation of the *Americans with Disabilities Act of 1990 (*ADA) is having current transition plans that include the public rights-of-way in one-third of the States.

FHWA conducted regional livability workshops across the country to provide resources to practitioners and the general public to better consider the transportation needs of communities within the transportation planning process. FHWA released a series of documents that demonstrate how transportation projects can foster livability in communities of varying sizes including in rural areas. A report was submitted to Congress on the results of the Non-motorized Transportation Pilot Program, which demonstrates how communities benefit from policies and investments that support walking and bicycling. In addition, the agency has conducted workshops and national webinars on the ADA and on designing pedestrian facilities for accessibility, as well as similar training in the area of best practices for ADA transition plans. One such best practice national webinar was held in April 2012 and a national webinar on Context Sensitive Solutions and the ADA occurred in January 2012.

HOW OUTCOMES WILL BE ACHIEVED

PRIMARY ACTIVITIES SUPPORTING THIS OUTCOME

Transportation Alternatives Program (TAP) funds will support projects that create safe and affordable transportation choices in communities across the country. FHWA will provide guidance to States and other agencies concerning the TAP. In addition, the agency will conduct outreach for the TAP, which can be used to support walking and bicycling transportation projects. The new program continues efforts to enhance transportation choice by replacing the Transportation Enhancements Program, allowing States to continue Safe Routes to School Programs, and maintaining the Recreational Trails Program. Examples of activities that will be funded through the TAP to benefit transportation choice, safety, and human and natural environment include:

- Pedestrian and bicycle facility construction, planning, and design, including projects to achieve compliance with the ADA;
- Construction of turnouts, overlooks, and viewing areas;
- Inventory, control, or removal of outdoor advertising;
- Historic preservation and rehabilitation of historic transportation facilities;
- Environmental mitigation activities, including pollution prevention and pollution abatement activities and mitigation to address stormwater management, vegetation management, and archaeological activities related to project impacts, historic preservation and rehabilitation of historic transportation facilities, and activities to improve connectivity of terrestrial or aquatic habitats;
- Continuing the Recreational Trails Program as an apportionment set-aside, at the option of the State, and continuing eligibility for Recreational Trails projects in any case;
- Continuing eligibility for Safe Routes to School projects; and,
- Planning, designing, or constructing boulevards and other roadways largely in the right-of-way of former Interstate System routes or other divided highways.

Federal Lands and Tribal Transportation Program (FLTTP) funds will support Livability projects, particularly in rural America. Many communities outside national parks, refuges, and forests are close enough to urban areas to facilitate the use of transit, vanpools, and bicycles to access Federal lands. Greater use of alternative transportation options inside and outside Federal lands helps reduce car emissions, eases congestion at the gate, and preserves the environment inside the Federal lands for future generations. The Tribal Transportation Program supports rural livability in tribal communities by providing better access to housing, emergency services, schools, stores, places of employment, and medical services. Access to these basic services will enhance the quality of life on tribal lands.

ENABLING LEGISLATION AND REGULATIONS

The success of these objectives is made possible in part by enactment of MAP-21. The legislation consolidated Federal funding programs and created the TAP (Section 1122), which will be a key program for advancing transportation choices in the States. In addition, planning regulations and ADA laws support the outcomes. State and metropolitan planning organizations, planning regulations describe how walking and bicycling are to be accommodated throughout the planning process, e.g., 23 CFR 450.200, 23 CFR 450.300, 23 U.S.C. 134(h), and 135(d). Key statutes are described in the 2010 *Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations.* ADA transition plans are required by law and regulation. State and local governments with 50 or more employees are required to perform a self-evaluation, or inventory, of their current services, practices, and facilities such as curb ramps and sidewalks that do not or may not meet ADA requirements. The transition plan, which follows this self-evaluation, describes in detail the methods that will be used to make the public entity's facilities accessible. The plan also specifies the schedule for taking the steps necessary to achieve compliance, which are prescribed in 28 CFR 35.150(d).

RESOURCES, TRAINING, AND SKILLS

- Training—The strategic objective focuses on building multimodal transportation systems and involving nontraditional partners. It is a crosscutting topic and requires a multidisciplinary approach. Many agencies are beginning to increase their focus on multimodal transportation issues. As such, FHWA must work with stakeholders to ensure that they have the training and information resources necessary to incorporate the safest and most cost-effective multimodal transportation facilities into their planning for system development and enhancement. FHWA offers the types of training needed through several resources to promote multimodal transportation including:
  - Training on designing bicycle and pedestrian facilities through the NHI;
  - A National Clearinghouse on walking and bicycling information, the Pedestrian Bicycle Information Center, which provides technical assistance on pedestrian and bicycle safety; and,
  - Outreach on MAP-21's new funding program, Transportation Alternatives, which can be used to support walking and bicycling transportation projects.

PARTNERS

State DOTs, State and Federal agencies, tribal governments, interested parties, and the public.

RESPONSIBLE OFFICIALS

Gloria Shepherd, Associate Administrator, Office of Planning, Environment, and Realty; Warren Whitlock, Acting Associate Administrator, Office of Civil Rights; and Joyce Curtis, Associate Administrator, Office of Federal Lands Highway, Federal Highway Administration.

INCREASED ACCESS TO CONVENIENT AND AFFORDABLE TRANSPORTATION CHOICES—TRANSIT (FTA)

WHY IS THIS EFFORT NECESSARY?

Every day, tens of millions of Americans benefit from having transit as a transportation option for getting to work, health care, education, shopping, and recreation destinations. FTA's goal is to increase transit ridership by making public transportation increasingly available and convenient for transit-dependent populations, and by making transit a "mode of choice" to populations with multiple transportation options.

STRATEGIC OUTCOME AND SUPPORTING PERFORMANCE MEASURES

Increased access to convenient and affordable transportation choices.

Increase the Number of Annual Transit Boardings Reported by Urbanized Area Transit Providers to At Least 10.4 Billion by the End of 2014

	2010	2011	2012	2013	2014
Target	N/A	10.0 B	10.1B	10.2B	10.4B
Actual	10.0B	10.1B(r)	10.3B*		

* Projection based on data through August 2012
(r) Revised

Increase the Number of Annual Transit Boardings Reported by Rural Area Transit Providers to At Least 154 Million by the End of 2014

	2010	2011	2012	2013	2014
Target	N/A	140M	144M	148M	154M
Actual	138.0M	141M			

Significantly Increase the Transit "Market Share" Among Commuters to Work in At Least 6 of the 50 Most-Populous Urbanized Areas by a Statistically Significant Amount by 2014 From the 2010 Baseline

	2010	2011	2012	2013	2014
Target	N/A	2	4	5	6
Actual	0	1(p)			

(p) Preliminary results

PAST PERFORMANCE AND FUTURE MILESTONES

National transit ridership grew more slowly than anticipated in 2011 due to overall weak economic conditions. With only one of the Top 50 urbanized areas reporting a statistically significant increase in transit market share in 2011, results for this goal are running behind target. This measure relies on three-year averages from the American Community Survey (ACS). As a result, the 2011 number shares two years of data with the 2010 baseline. However, national transit ridership growth was higher in 2012 compared with 2011, which may translate into increased transit market share in other urbanized areas. FTA expects to meet the 2012 target.

Data collections are being supported by new ACS data that is now available from the Census Bureau. The ACS provides data on the mode of travel to work for people over 16 years of age by urbanized area. FTA is targeting a statistically significant increase in the percentage of commuters who use transit to ride to work in at least 10 of the largest 50 urbanized areas. The Census Bureau will release data based on new urbanized area definitions from the 2010 Census in early 2013. The current average mode share for transit across these areas is now 5.2 percent.

Future milestones include:

- Developing data sources and maintaining a public database of transit access points and service levels;
- Working with other Federal agencies to identify specific policies or programs to reinforce common agency development efforts;
- Awarding grants to support construction of new and extended transit services; and,
- Using research to improve understanding and performance in livability and environmentally sustainable outcomes.

STRATEGIC OUTCOME AND SUPPORTING PERFORMANCE MEASURES

Improved access to transportation for older adults and people with disabilities.

Increase the Number of Key Rail Transit Stations Verified as Accessible and Fully Compliant From 522 to 580 by the End of 2014

	2010	2011	2012	2013	2014
Target	522 (r)	527(r)	531	570	580
Actual	513	522	567		

(r) Revised

PAST PERFORMANCE AND FUTURE MILESTONES

FTA has tracked ADA compliance of vehicle fleets and key rail transit stations for some time. FTA has set a goal of increasing the number of key rail transit stations that are accessible and fully compliant to 605 by 2016.

HOW OUTCOMES WILL BE ACHIEVED

FTA will continue to invest in additional rail stations and pursue solutions to cases where existing facilities are not accessible due to the high cost of making them compliant.

PRIMARY ACTIVITIES SUPPORTING THIS OBJECTIVE

- Providing grants to urban and rural areas;
- Disseminating information to States, localities, and others;
- Training;
- Promoting access for veterans and persons covered under the ADA;
- Conducting research and development;
- Developing policies and seeking public comment in partnership with other Federal agencies; and,
- Providing technical assistance.

ENABLING LEGISLATION AND REGULATIONS

49 U.S.C. 5301 states that it is in the interest of the United States to foster the development and revitalization of public transportation systems that maximize the safe, secure, and efficient mobility of individuals. Funds available through various formula grant programs authorized through 49 U.S.C. 5305, 5307, 5309, 5310 and 5311, 5318, 5339, and 5340, and MAP-21 20005(b) may also support the goal of livable communities.

RESOURCES, TRAINING, AND SKILLS

- IT—FTA maintains information as part of its National Transit Database and also on the agency's grants management systems.
- Training—Introduce engineering and transportation public policy experts to new livability concepts.
- Skills—FTA requires staff with engineering, planning, economic, and policy skills.

PARTNERS

FTA's partners in this effort include transit agency grant recipients, State DOTs, local governments, metropolitan planning organizations, research entities, transit industry trade organizations, members of the disability community, and the U.S. Architectural and Transportation Barriers Compliance Board (Access Board).

RESPONSIBLE OFFICIAL

Linda Ford, Acting Director, Office of Civil Rights, Federal Transit Administration.

IMPROVED ACCESS TO TRANSPORTATION FOR PEOPLE WITH DISABILITIES AND OLDER ADULTS (FRA)

WHY IS THIS EFFORT NECESSARY?

The *Americans with Disabilities Act of 1990* (ADA) requires that all stations in the intercity rail transportation system be readily accessible to and usable by individuals with disabilities, including those who use wheelchairs, as soon as practicable, but no later than July 26, 2010. Limited funding prevented Amtrak from meeting this deadline.

STRATEGIC OUTCOMES AND SUPPORTING PERFORMANCE MEASURES

Improved access to transportation for people with disabilities and older adults.

Increase the Cumulative Percentage of Intercity Passenger Rail Stations* That Comply with the Requirements of the Americans with Disabilities Act to At Least 8 Percent by the End of FY 2014

	2010	2011	2012	2013	2014
Target	N/A	N/A	2%	4%	8%
Actual	N/A	N/A	+		

N/A—FRA had not established and did not track this measure before FY 2012.
* Where Amtrak is responsible for compliance.
\+ Tracking will begin in FY 2013 after Amtrak completes its reassessment of station designs and construction plans. The Federal rule and guidance released in May 2012 addressing level boarding requirements require Amtrak to undertake this reassessment.

PAST PERFORMANCE AND FUTURE MILESTONES

The Current Passenger Rail Service program provides dedicated funding to bring all intercity passenger rail stations into ADA compliance. Additionally, ADA compliance projects were funded under the previous Amtrak capital grants program and the Capital Assistance for High Speed Rail Corridors and Intercity Passenger Rail Service program. Amtrak estimates that by the end of FY 2011 ADA-related design and construction work was under way at 110 stations.

The President's FY 2013 and 2014 budgets request funding to build upon Amtrak's Mobility First program to reduce accessibility barriers at Amtrak-served stations and bring them into compliance with ADA standards.

HOW OUTCOMES WILL BE ACHIEVED

PRIMARY ACTIVITIES SUPPORTING THIS OUTCOME

- Assisting Amtrak in prioritizing its ADA compliance plan and coordinating with third parties that share responsibility with Amtrak for ADA compliance; and
- Overseeing Amtrak's implementation and compliance with ADA requirements.

ENABLING LEGISLATION AND REGULATIONS

- The *Passenger Rail Investment and Improvement Act of 2008* authorized the high-speed and intercity passenger rail grants funded under the *American Recovery and Reinvestment Act of 2009* and FY 2010 appropriations, and included in the FY 2013 and FY 2014 budget requests. The *Americans with Disabilities Act of 1990* mandated that all intercity passenger rail stations be made readily accessible by individuals with disabilities by July 26, 2010.

RESOURCES, TRAINING, AND SKILLS

- IT—FRA utilizes the Delphi financial management system to manage obligations and outlays to Amtrak.
- Training—FRA staff will need training related to project management and oversight, capital cost forecasting, mobility management, disability community technical support, and contracting.
- Skills—FRA relies on the skills of a wide range of professions to implement and monitor stations' compliance with ADA requirements, including transportation analysts, engineers, environmental specialists, station planners, financial management specialists, grant management specialists, and civil rights specialists.

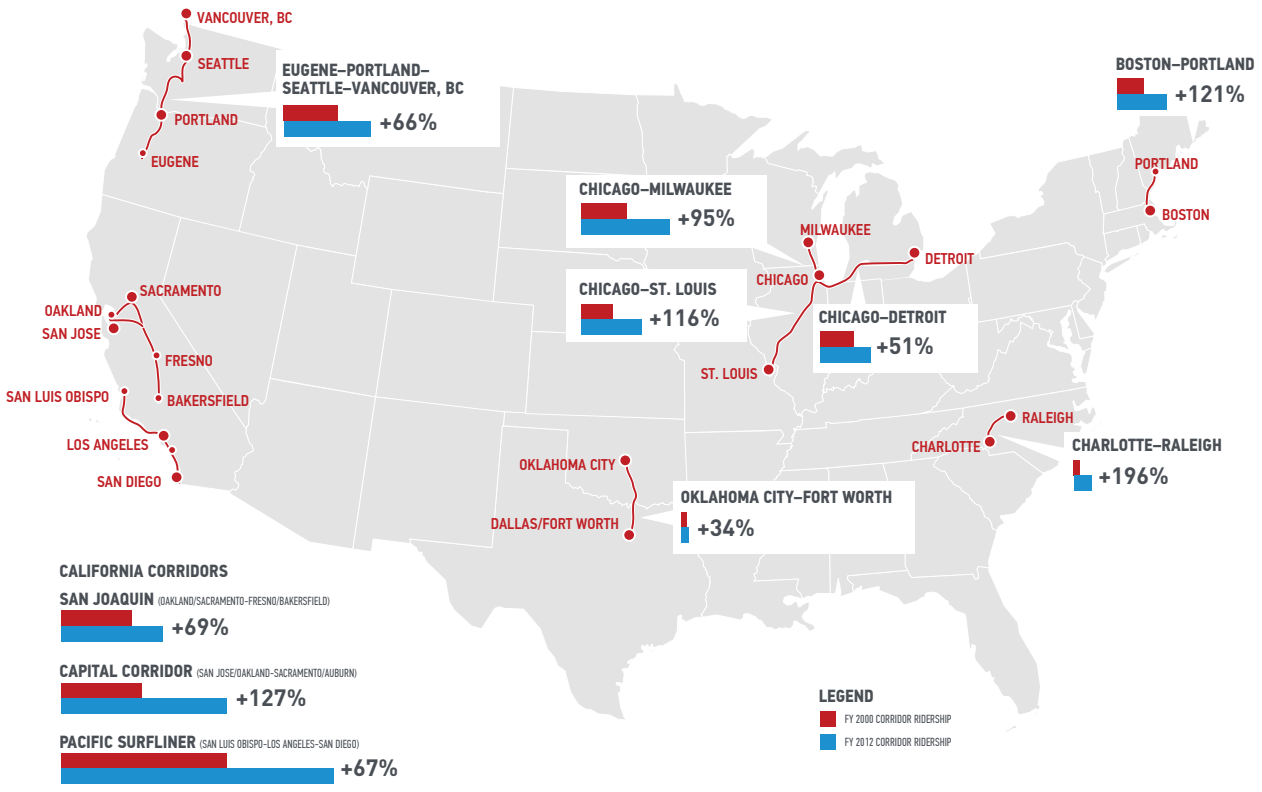
PARTNERS

FRA's partners in this effort include States, Amtrak and other railroad operators, freight railroads, municipal planning organizations, transit agencies, passenger rail advocates, and the disability community.

RESPONSIBLE OFFICIAL

Paul Nissenbaum, Associate Administrator for Railroad Policy and Development, Federal Railroad Administration.

Ridership Growth on Selected Intercity Passenger Rail Corridors, 2000 to 2012



Source: Amtrak

INCREASED ACCESS TO CONVENIENT AND AFFORDABLE TRANSPORTATION CHOICES—HIGH-SPEED INTERCITY PASSENGER RAIL (FRA)

WHY IS THIS EFFORT NECESSARY?

Intercity passenger rail is well suited to complement America's constrained aviation and highway networks to help meet the passenger and freight transportation needs of a dynamic and changing U.S. population. The U.S. Census Bureau projects that an additional 100 million people will reside in the United States by 2050. Centered mostly in concentrated geographic areas called "mega-regions," this population will add 4 billion tons of freight movement each year. Increased highway and aviation congestion coupled with rising energy costs have encouraged Americans and shippers to seek new transportation options.

STRATEGIC OUTCOMES AND SUPPORTING PERFORMANCE MEASURES

Increased intercity passenger rail ridership.

Increase the Number of Intercity Rail Passenger-Miles Traveled to At Least 6.9 Billion by the End of 2014

	2010	2011	2012	2013	2014
Target	N/A	6.45B	6.60B	6.75B	6.90B
Actual	6.33B	6.53B	6.80B		

N/A—FRA did not establish targets for this measure prior to 2011.

PAST PERFORMANCE AND FUTURE MILESTONES

FRA's National High Performance Rail System contains two programs—Current Passenger Rail Service and the Rail Service Improvement Program—that support initiatives aimed at planning and developing high-speed and intermodal rail corridors and terminal areas, developing multimodal stations, facilitating the standardization and procurement of rail equipment, and maintaining critical rail assets and infrastructure. Many of these initiatives, as well as projects currently under way, began under the previous Capital Assistance for High Speed Rail Corridors

and Intercity Passenger Rail Service program, as well as Amtrak's capital and operating grants.

With grants funded under the *American Recovery and Reinvestment Act* and FY 2010 appropriations, FRA began laying the groundwork to achieving this livability outcome. Major milestones over the next two years include:

- Initiation or completion of construction projects on passenger rail corridors that cumulatively connect 135 million Americans (44 percent of the U.S. population);
- Initiation or completion of new construction or improvements at nearly 50 intercity passenger rail stations;
- Merit-based grant application review and award of discretionary, competitive funding for high-speed rail activities;
- Construction activities on six major corridor programs (California, Seattle–Portland, Chicago–St. Louis, Chicago–Detroit, Boston–Washington, D.C., and Charlotte–Washington, D.C.) that will substantially improve these services' reliability, speed, or frequency;
- Construction activities on three smaller corridor programs (Chicago–Iowa City, New Haven–Springfield, and Portland, Maine-Brunswick, Maine), connecting communities without previous rail service (such as Brunswick) and improving operations (New Haven–Hartford corridor); and,
- Issuance of additional technical guidance to support high-quality, effective project development and delivery and ensure greater consistency in project sponsor approaches.

HOW OUTCOMES WILL BE ACHIEVED

PRIMARY ACTIVITIES SUPPORTING THIS OUTCOME

- Soliciting applications and awarding funding;
- Providing training and technical assistance to States and other stakeholders to aid in the successful development and implementation of high-speed and intercity passenger rail proposals; and,
- Developing tools for use in regional route planning and national- and corridor-level analyses of public benefits and costs of high-speed rail.

ENABLING LEGISLATION AND REGULATIONS

- The *Passenger Rail Investment and Improvement Act of 2008* authorized the high-speed and intercity passenger rail grants funded under the *American Recovery and Reinvestment Act of 2009* and FY 2010 appropriations, and included in the FY 2013 and FY 2014 budget requests.
- The *Transportation Equity Act for the 21st Century* (TEA-21), as amended, authorized the Railroad Rehabilitation and Improvement Financing Program to provide direct loans and loan guarantees for eligible rail projects.

RESOURCES, TRAINING, AND SKILLS

- IT—FRA utilizes the GrantSolutions system to administer the application solicitation, evaluation, and award processes for high-speed and intercity passenger rail funding; the Delphi financial management system is used to manage the obligations and outlays processes.
- Training—FRA staff will need training related to project management and oversight, capital cost forecasting, travel demand forecasting, transportation systems planning, land use development and integration, environmental analysis related to the National Environmental Policy Act, procurement standards, and contracting.
- Skills—FRA relies on the skills of a wide range of professions to increase access to convenient and affordable transportation choices, including transportation analysts, engineers, economists, rail system and station planners, environmental specialists, financial management specialists, and grant management specialists.

PARTNERS

FRA's partners in this effort include States, Amtrak and other railroad operators, freight railroads, municipal planning organizations, transit agencies, passenger rail advocates, and the disability community.

RESPONSIBLE OFFICIAL

Paul Nissenbaum, Associate Administrator for Railroad Policy and Development, Federal Railroad Administration.

STRATEGIC GOAL:

ENVIRONMENTAL SUSTAINABILITY

ENVIRONMENTAL SUSTAINABILITY

Advance environmentally sustainable policies and investments that reduce carbon and other harmful emissions from transportation sources

REDUCED CARBON EMISSIONS, IMPROVED ENERGY EFFICIENCY, AND REDUCED DEPENDENCE ON OIL—AVIATION FUEL EFFICIENCY (FAA)

WHY IS THIS EFFORT NECESSARY?

Improvements in aircraft energy efficiency over the last 20 years have outpaced other forms of transportation in the United States. Notwithstanding this success, there is renewed emphasis on improving the fuel efficiency of the National Aviation System (NAS). Fuel currently represents the largest operating cost for U.S. airlines, and this cost category has grown dramatically in recent years. Annually measuring and tracking NAS-wide fuel efficiency from aircraft operations allows FAA to monitor improvements in aircraft/engine technology.

Modern aircraft are up to 70 percent more fuel efficient than early commercial jet aircraft. However, there is growing concern over aviation's impact on the environment and public health. Aviation is currently viewed as a relatively small emissions contributor that has the potential to influence air quality and global climate. Carbon dioxide (CO_2) emissions are a primary greenhouse gas and are directly related to the fuel burned during the aircraft's operation. As air traffic grows, aviation's CO_2 contribution will increase unless there are offsetting improvements in aircraft/engine technology, renewable fuels, operational procedures, and traffic management.

STRATEGIC OUTCOME AND SUPPORTING PERFORMANCE MEASURES

Reduction in transportation-related carbon emissions, improved energy efficiency, and reduction in use of oil in the transportation sector.

Improve National Airspace System (NAS) Energy Efficiency (Fuel Burned Per Distance Flown) by At Least 2 Percent Per Year from 4.24 Teragrams Per Billions of Kilometers (Tg/Bkm) in 2010 to 3.91 Tg/Bkm in 2014*

	2010	2011	2012	2013	2014
Target	-10.00%	-12.00%	-14.00%	-16.00%	-18.00%
Actual	-15.25%	-14.50%	-14.76%		

* The targets and results for this measure are tracked by calendar year.

PAST PERFORMANCE AND FUTURE MILESTONES

With a result of -14.76 percent, FAA exceeded the FY 2012 energy efficiency target as measured by the calendar year (CY) 2011 rate of fuel burned per revenue mile flown, relative to the calendar year 2000 baseline. The objective is to improve NAS energy efficiency by 2 percent per year beginning in CY 2010. The lower the percent reduction indicates that aircraft flying in the NAS burn less fuel (synonymous with fewer CO_2 emissions) per distance flown. From CY 2000 through CY 2011, NAS energy efficiency has been below government targets. This demonstrates continued progress in maintaining the fuel efficiency of commercial aircraft operations within the airspace system, thereby minimizing environmental impact. This improvement is due in part to the retirement of older, less-fuel-efficient aircraft.

The continued implementation of NextGen air traffic modernization should further improve efficiency by reducing delays. Sustainable practices by airport operators can conserve energy, make use of renewable resources (solar, wind, and geothermal), and deploy low-emission vehicles and ground support equipment. Moreover, advances in the development of sustainable alternative fuels offer great promise for emissions reduction. Nearly 100 percent of the jet fuel used in aviation operations is petroleum-based—raising issues of energy supply, energy security, and fossil fuel emissions affecting air quality and climate. In response to these concerns, the Federal Government and the aviation industry have a strong interest in "drop in" alternative aviation fuels that

can be blended with or replace petroleum jet fuel with no changes to existing engines, aircraft, ground infrastructure, and supply equipment. Sustainable alternative fuel options that use plant oils, sugars, or cellulose from plants have the potential to reduce the net carbon dioxide emissions from commercial aviation. Generally, all alternative aviation fuel options appear to reduce particulate matter emissions in engine exhausts—a cause of respiratory ailments, although not unique to aviation as a source.

In FY 2009, FAA partnered with NASA to develop the Continuous Lower Energy, Emissions, and Noise (CLEEN) program. The goal of this five-year program is to introduce CLEEN technologies into production aircraft in the 2015–2017 time frame. The partnership will help achieve NextGen goals to increase airspace system capacity by reducing significant community noise and air quality emissions impacts in absolute terms and limiting or reducing aviation greenhouse gas emissions impacts on the global climate.

HOW OUTCOMES WILL BE ACHIEVED

PRIMARY ACTIVITIES SUPPORTING THIS OUTCOME

- Deploy sustainable alternative jet fuels;
- Develop NextGen technologies, model, and metrics;
- Develop and mature clean and quiet technologies and advance alternative fuels to mitigate NextGen environmental impacts through FAA's CLEEN program;
- Foster improvements to mitigate noise and emission impacts; and,
- Leverage a broad cross section of stakeholders through FAA's Partnership for Air Transportation Noise and Emissions Reductions Center of Excellence, the forthcoming Center of Excellence for Alternative Jet Fuel and Environment, and the Airports Cooperative Research Program to foster scientific, operations, policy, and work advances, as well as breakthroughs that mitigate noise and emissions impacts.

ENABLING LEGISLATION AND REGULATIONS

- Title 49 CFR, Transportation—Aligns the NAS-wide energy efficiency metric with the environmental goals and targets for the Next Generation Air Transportation System.
- Title 42, U.S.C., The Public Health and Welfare; Chapter 85, Air Pollution Prevention and Control (the Clean Air Act)—Establishes the monitoring and control strategies for reducing the health impacts from all emissions sources in the United States.

RESOURCES, TRAINING, AND SKILLS

- IT—Provide support in the computer systems and software used to analyze NAS-wide fuel efficiency analyses. The Aviation Environmental Design Tool is an FAA-developed software program that dynamically flies aircraft and simultaneously generates the fuel burn, emissions, and noise consequences from commercial aviation.
- Training—Internal professional and leadership development program.
- Skills—The broad mix of skills needed to address the NAS-wide fuel efficiency efforts includes engineers, physical scientists, support staff, contract administrators, and grant administrators.

PARTNERS

FAA partners in this effort include the National Aeronautics and Space Administration (NASA), the Department of Energy (DOE), the United States Department of Agriculture (USDA), the Aerospace Industries Association, and the Airlines for America Association.

RESPONSIBLE OFFICIAL

Julie Oettinger, Assistant Administrator for Policy, International Affairs and Environment, Federal Aviation Administration.

REDUCED TRANSPORTATION-RELATED AIR, WATER, AND NOISE POLLUTION AND IMPACTS ON ECOSYSTEMS—AVIATION NOISE (FAA)

WHY IS THIS EFFORT NECESSARY?

Environment and energy issues present a significant challenge to aviation and the development of NextGen. A critical component to ensure that the economic and social benefits of future air transportation demand are met will be to improve mobility (i.e., increasing efficiency and capacity); however, these enhancements have the potential to be constrained by aviation's environmental effects. The environmental vision for NextGen is to provide environmental protection that allows sustained aviation growth. Noise, air quality, climate, and energy are the most significant potential environmental constraints to increasing aviation capacity, efficiency, and flexibility. FAA has established several programs and activities aimed at addressing these constraints. For noise, that involves limiting the number of people exposed to significant noise levels. Significant noise is defined as Day Night Average Sound Level (DNL) 65 decibels (dB). The number of people exposed to significant noise levels was reduced by approximately 90 percent between 1975 and 2000. This is due primarily to the legislatively mandated transition of airplane fleets to newer generation aircraft that produce less noise. Most of the gains from quieter aircraft were achieved by FY 2000. There have been incremental improvements since that time. Absent further advances in noise reduction technologies and procedures and fleet evolution, the remaining problem must be addressed primarily through airport-specific noise compatibility programs.

FAA pursues a program of aircraft noise control in cooperation with the aviation community. Noise control measures include noise reduction at the source (i.e., development and adoption of quieter aircraft), soundproofing and buyouts of buildings near airports, operational flight control measures, and land use planning strategies. FAA is authorized to provide funds for soundproofing and residential relocation, but each project must be locally sponsored, part of a noise compatibility program prepared by the airport sponsor, and approved by FAA.

STRATEGIC OUTCOME AND SUPPORTING PERFORMANCE MEASURES

Reduce transportation-related air, water, and noise pollution and impacts on ecosystems.

Improve Aviation Noise Exposure by At Least 2 Percent Per Year So That No More Than 356,000 Persons Are Exposed to Significant Aircraft Noise Around Airports in 2014

	2010	2011	2012	2013	2014
Target	419,000	402,000	386,000	371,000	356,000
Actual	317,596	315,293	319,901		

* When reporting, the previous calendar year exposure is reported for the fiscal year. For FY 2012, for example, the number of people exposed to significant noise in CY 2011 is reported.

PAST PERFORMANCE AND FUTURE MILESTONES

In FY 2012, FAA met its target to reduce noise exposure. Air carrier fleet and operational changes have driven the significant reduction in noise exposure since the base year of 2005. Carriers continue to retire older, less-fuel-efficient aircraft that tend to produce more noise. In addition, passenger demand continues to be below 2005 levels, resulting in decreased air traffic. The persistence of significant levels of aircraft noise in communities around airports is the major impact, but not the only impact.

There are increasing concerns in areas of moderate noise exposure and public complaints from suburban and rural areas where ambient noise is lower. Consequently, the actual number of residents exposed to significant noise remains well below the current target. As air traffic begins to recover and grow over time, noise exposure is likely to increase. The target will continue to be reassessed as FAA takes a more integrated approach to environmental regulation by assessing the relative costs and benefits of noise, air quality, greenhouse gas emissions, and the tradeoff in achieving reductions in each. For FY 2012, targets and results for this metric were changed from percent of population exposed to the number of persons exposed. The prior years' targets and results have been recalculated from the original percentages.

In FY 2009, FAA partnered with NASA to develop the Continuous Lower Energy, Emissions, and Noise (CLEEN) program. The goal of this five-year program is to introduce CLEEN technologies into production aircraft in the 2015–2017 time frame. The partnership will help achieve NextGen goals to increase airspace system capacity by reducing significant community noise and air quality emissions impacts in absolute terms and limiting or reducing aviation greenhouse gas emissions impacts on the global climate.

HOW OUTCOMES WILL BE ACHIEVED

PRIMARY ACTIVITIES SUPPORTING THIS OUTCOME

- Develop NextGen technologies;
- Develop and mature clean and quiet technologies and advance alternative fuels to mitigate NextGen environmental impacts through FAA's CLEEN technology program;
- Foster improvements to mitigate noise and emission impacts;
- Leverage a broad cross section of stakeholders, through FAA's Partnership for Air Transportation Noise and Emissions Reductions Center of Excellence, the forthcoming Center of Excellence for Alternative Jet Fuel and Environment, and the Airports Cooperative Research Program to foster scientific, operations, policy, and work advances and breakthroughs that mitigate noise and emissions impacts; and,
- Pursue a program of aircraft noise control in cooperation with the aviation community and local governments that concentrates on aircraft source noise reduction, soundproofing, buyouts of homes and other noise-sensitive buildings near airports, operational flight control measures, and land use planning strategies.

ENABLING LEGISLATION AND REGULATIONS

- *Airport Noise and Capacity Act* (ANCA) of 1990—Prohibits the operations of Stage 2 civil subsonic turbojet airplanes with a maximum weight of more than 75,000 pounds in the contiguous United States after December 1999.
- Title 49 CFR, Transportation; Subtitle VII, Aviation programs; Part A, Air Commerce and Safety; Subpart III, Safety; Section 44715, Safety Regulation: Controlling aircraft noise and sonic boom—FAA is charged with prescribing regulations to measure and abate aircraft noise.
- Title 14 CFR, Aeronautics and Space:
  - Part 36, Noise Standards: Aircraft and Airworthiness Certification; and,
  - Part 150, Airport Noise Compatibility.
- *FAA Modernization and Reform Act of 2012* Sec. 506—Prohibits operation of certain aircraft weighing 75,000 pounds or less not complying with Stage 3 noise levels.

RESOURCES, TRAINING, AND SKILLS

- IT—The Aviation Environmental Design Tool and Model for Assessing Global Exposure to the Noise of Transport Airplanes are used to track airport noise exposure. FAA replaced the Model for Assessing Global Exposure to the Noise of Transport Airplanes with the Aviation Environmental Design Tool for the FY 2012 analysis. The data source for airport traffic is the FAA Enhanced Traffic Management System.
- Training—Internal professional and leadership training program.
- Skills—The broad mix of skills needed to address the mitigation and reduction of significant aircraft noise efforts includes engineers, physical scientists, environmental specialists, operations research analysts, support staff, contract administrators, and grant administrators.

PARTNERS

Partners include government agencies worldwide and the aviation industry through the International Civil Aviation Organization, which periodically update noise standards and methodologies. FAA continues to partner with NASA in the development of CLEEN technologies for civil subsonic jet airplanes.

RESPONSIBLE OFFICIAL

Julie Oettinger, Assistant Administrator for Policy, International Affairs and Environment, Federal Aviation Administration.

REDUCED TRANSPORTATION-RELATED AIR, WATER, AND NOISE POLLUTION AND IMPACTS ON ECOSYSTEMS—PIPELINES (PHMSA)

WHY IS THIS EFFORT NECESSARY?

Hazardous liquid pipelines supply most of the energy for transportation—as well as crude oil used for other purposes—through a nationwide network of about 175,000 miles of pipelines. While pipelines are the safest mode of transportation for hazardous liquids, the volume and nature of the cargo can present a significant environmental risk, particularly in high-consequence areas.

STRATEGIC OUTCOME AND SUPPORTING PERFORMANCE MEASURES

Reduction in pollution from transportation sources.

Reduce the Number of Hazardous Liquid Pipeline Spills with Environmental Consequences to 89 or Fewer in 2014

	2010	2011	2012	2013	2014
Target	89–108	84–104	80–99	76–94	73–89
Actual	88	106	114(p)		

(p) Preliminary estimate

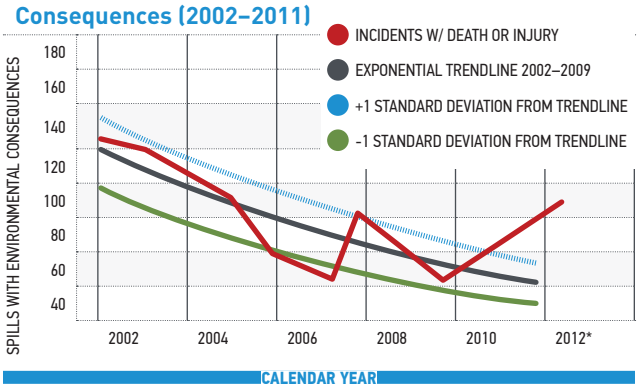
PAST PERFORMANCE AND FUTURE MILESTONES

Liquid pipeline spills with environmental consequences (impacting water, soil, fish, birds, or other wildlife) have declined an average of 5 percent per year since 2002.

The risk of environmental consequences is focused on products that are liquid at atmospheric pressure. Though CO_2 and some other highly volatile liquids are transported by pipeline, they vaporize when released.

Future targets are set to continue this long-term trend of performance, using a range to account for normal, annual variation in the numbers.

Liquid Pipeline Spills with Environmental Consequences (2002–2011)



* Preliminary
Exponential regression to show long-term trend
Source: PHMSA incident data—as of Dec. 31, 2012.

HOW OUTCOMES WILL BE ACHIEVED

PRIMARY ACTIVITIES SUPPORTING THIS OUTCOME

PHMSA oversees the safety and environmental protection of pipelines through:

- Analysis of data;
- Damage prevention;
- Education and training;
- Rulemaking;
- Enforcement of regulations and standards;
- Research and development;
- Grants for State pipeline safety programs;
- Community assistance and outreach; and
- Emergency planning for response to accidents.

ENABLING LEGISLATION AND REGULATIONS

Pipeline safety legislation at 49 U.S.C. 60101–60134 authorizes a comprehensive program for regulating hazardous liquid pipelines in the United States. This includes authority to enter into agreements with States to inspect these pipelines, subject to enforcement by PHMSA.

Pipeline safety regulations in 49 CFR 190–199 govern the design, construction, operation, and maintenance of pipelines, as well as administrative procedures for enforcement and management of State grants. 49 CFR 195 addresses specific requirements for hazardous liquid pipelines.

RESOURCES, TRAINING, AND SKILLS REQUIRED

- IT—The Safety Monitoring and Reporting Tool (SMART) provides a central repository for pipeline safety information; the FedStar system provides information and tools for State programs; the National Pipeline Mapping System provides geospatial information on the national pipeline infrastructure; and the National Pipeline Information Exchange (NPIX) will provide a 360-degree profile of geographic information associated with 2.6 million miles of pipelines within the United States.
- Training—PHMSA provides a comprehensive training and qualification program for Federal and State inspectors, including a three-year core program for new inspectors.
- Skills—The program needs a mix of skills, with special focus on expertise in engineering, analysis, communications, and grant administration.

PARTNERS

Some State pipeline safety agencies act as interstate agents for PHMSA, inspecting hazardous liquid pipelines on its behalf.

RESPONSIBLE OFFICIAL

Jeffrey Wiese, Associate Administrator for Pipeline Safety, Pipeline and Hazardous Materials Safety Administration.

INCREASED USE OF ENVIRONMENTALLY SUSTAINABLE PRACTICES (OST)

WHY IS THIS EFFORT NECESSARY?

Building, operating, and maintaining transportation systems have environmental consequences, and DOT has many opportunities for increasing sustainability, reducing carbon and other harmful greenhouse gas emissions, promoting energy independence, and addressing global climate change for the Department's buildings and fleet. Under Executive Order (E.O.) 13514, the Department of Transportation is required to increase efficiency; measure, report, and reduce greenhouse gas emissions; conserve and protect water resources; eliminate waste, increase recycling, and prevent pollution; acquire environmentally preferable materials, products, and services; design, construct, maintain, and operate high-performance sustainable buildings; and strengthen the vitality and livability of local communities.

The Department of Transportation has prepared and is implementing a 10-year strategic sustainability plan, which requires annual progress in each of these areas. Additionally, the DOT Strategic Sustainability Performance Plan identifies the far-reaching programs and activities that must be instituted to meet the 2010–2020 energy, environmental, and sustainability requirements of E.O. 13514. These energy, environmental, and sustainability efforts are incorporated in the Department's overall 2012–2016 Strategic Plan.

STRATEGIC OUTCOME AND SUPPORTING PERFORMANCE MEASURES

Increased use of environmentally sustainable practices and reductions in pollution, energy footprint, and other adverse environmental effects from DOT-owned or -controlled transportation services and facilities.

Achieve a 27-Percent Reduction in DOT Building Energy Intensity Use by the End of FY 2014 from an FY 2005 Baseline

	2010	2011	2012	2013	2014
Target	15%	18%	21%	24%	27%
Actual	20.2%	26.4%	24%		

In FY 2012, DOT building energy use as measured by intensity has decreased by 24 percent.

Achieve an 18-Percent Reduction in Vehicle Fleet Petroleum Use by the End of FY 2014 from an FY 2005 Baseline

	2010	2011	2012	2013	2014
Target	10%	12%	14%	16%	18%
Actual	5%	4.9%	14.5%		

In FY 2012, DOT fleet petroleum use decreased 14.5 percent from an FY 2005 baseline.

DOT has found inconsistencies and flaws in the General Services Administration (GSA) fuels capturing/reporting systems. DOT is now capturing and reporting alternative fuel usage manually to better track alternative fuel usage.

The Department has identified a large number of medium/large sport utility vehicles (SUVs), sedans, and trucks that are not fuel efficient within the Department fleet program. The Assistant Secretary for Administration directed all DOT operating administrations to replace these vehicles with energy-efficient vehicles that meet Federal standards for reduction of petroleum and emissions.

The Assistant Secretary for Administration directed that semi-annual reviews be conducted by fleet managers to remove any underutilized vehicles and consolidate fleet requirements when applicable.

Achieve a 14-Percent Improvement in Water Efficiency by the End of FY 2014 from an FY 2007 Baseline

	2010	2011	2012	2013	2014
Target	6%	8%	10%	12%	14%
Actual	(1.2%)	(9.7%)*	0.9%		

* In FY 2011, DOT water consumption as measured by intensity increased 9.7 percent.

In FY 2012, DOT water use as measured by intensity has decreased by 0.9 percent. In order to meet the water efficiency target, DOT will emphasize the implementation of water conservation activities in its buildings, such as improved operation and maintenance practices and devices. Currently, DOT is monitoring water consumption at many facilities, but it is still extremely difficult to measure water consumption at all facilities using the minimal information that is available. As such, DOT is analyzing its accounting system to estimate water consumption using facilities' water utility bills.

Reduce Landfill Waste by 40 Percent Through Increased Recycling and Waste Diversion by the End of FY 2014 from an FY 2010 Baseline

	2010	2011	2012	2013	2014
Target	2%	4%	6%	8%	40%
Actual	N/A	N/A	11%		

Actual data is not available for FY 2010 or FY 2011. Information regarding waste disposal and recycling is decentralized in approximately 1,000 buildings across the Nation. DOT does not have a centralized method for collecting this data at present. Currently, OMB and CEQ are developing waste definitions and calculation methodologies pertaining to E.O. 13514, but these have not yet been issued. However, DOT is working to develop centralized waste data collection for when the official methodology becomes available.

Maintain that 95 Percent of All Applicable Contracts Will Meet Sustainability Requirements Annually Through FY 2014

	2010	2011	2012	2013	2014
Target	95%	95%	95%	95%	95%
Actual	N/A	95%	95%		

Actual data is not available for FY 2010. In FY 2012, approximately 95 percent of all applicable contracts met sustainability requirements.

Achieve a 7-Percent Reduction in Greenhouse Gas Emissions from Facilities and Fleets by the End of FY 2014 from an FY 2008 Baseline

	2010	2011	2012	2013	2014
Target	0%	2%	4%	6%	7%
Actual	7.9%	15.4% (r)	29%		

(r) Revised

Greenhouse gas emissions from DOT facilities and fleet have decreased by 29 percent since FY 2008.

Achieve a 5-Percent Reduction in Greenhouse Gas Emissions from Employee Business Travel and Commuting by the End of FY 2014 from an FY 2008 Baseline

	2010	2011	2012	2013	2014
Target	0%	0%	2%	4%	5%
Actual	(4.7%)	<0.1%	14%		

Greenhouse gas emissions from Scope 3 sources such as business air travel and employee commuting have decreased by 14 percent since FY 2008. A fundamental challenge the Department has faced in achieving its Scope 3 GHG reductions is due to an increase in number of DOT employees, which has a direct impact on all elements of emissions—commuting, travel, and waste generated. However, DOT has made tremendous strides in reducing its emissions from employee commuting and employee business air travel.

PAST PERFORMANCE AND FUTURE MILESTONES

- In FY 2012, DOT consumed 3,173,473 gallons of petroleum fuel and achieved a reduction of 14.5 percent from its FY 2005 baseline. DOT also consumed 273,455 gasoline gallon equivalents of alternative fuel, meeting its alternative fuel goals.
- In FY 2012, DOT water consumption as measured by intensity has decreased 0.9 percent since FY 2007. This represents a 10-percent reduction from FY 2011.
- The Department is currently on track to meet its Scope 1 and 2 reduction target of 12.3 percent for agency-wide GHG emissions by 2020. In FY 2012, DOT emitted approximately 566,304.7 metric tons CO_2-equivalent ($MTCO_2e$) of Scope 1 and 2 GHGs from its operations. This represents a 29-percent decrease in absolute Scope 1 and 2 emissions from its FY 2008 baseline.
- In FY 2012, the Department voluntarily surveyed its employees on their commuting behaviors including mode of transportation, distance traveled, and frequency of commute. Additionally, the survey was used to monitor the Department's progress in reducing commuter trips through telework, alternative work schedules, and other programs.
- DOT Headquarters implemented a Higher-Tier Environmental Management System (EMS) in FY 2012.
- DOT energy consumption as measured by intensity has decreased 24 percent since FY 2003, meeting the Energy Independence and Security Act (EISA) of 2007 requirement.
- In FY 2012, approximately 14 percent (5 percent requirement) of electricity consumed by the Department came from renewable resources.
- In FY 2012, the Department continued to track quarterly performance on sustainability targets related to employee commuting, renewable energy, water efficiency, high-performance sustainable buildings, and sustainable acquisition. These measures were included on the new internal Sustainability Scorecard.
- The Department completed its annual comprehensive GHG inventory, monitored petroleum and alternative fuel usage on a monthly basis to facilitate fuel compliance requirements, and continued to support a DOT-wide green team responsible for creating a culture of sustainability across the Department and serving as a community of interest.

HOW OUTCOMES WILL BE ACHIEVED

ENABLING LEGISLATION AND REGULATIONS

- Executive Orders 13423 (P.L. 111–8) and 13514;
- *Energy Independence and Security Act of 2007;* and,
- Energy Policy Act of 2005.

RESOURCES, TRAINING, AND SKILLS

- IT—A reporting system using the electronic timekeeping system to track telework and alternative work schedule programs; FAA Real Estate Management System (REMS) to monitor and manage building energy and water intensity performance; a fuel tracking and monitoring information system that allows near real-time monitoring of petroleum and alternative fuel usage Departmentwide.
- Training—"Green" procurement training for contracting officers, contracting officers technical representatives, and purchase cardholders is an ongoing need to meet sustainable acquisition requirements. Cross-government training such as the GreenGov Conference is an annual need to ensure awareness of new requirements and sharing of best practices.
- Skills—The program needs a mix of skills, with a special focus on expertise in environmental management/policy/science, energy, real estate/facility management, fleet management professional, contracting officers, IT professionals, HR systems professionals.

PARTNERS

The Department has formed a strategic partnership with DOE's Federal Energy Management Program to implement energy, environmental, and sustainability activities. This partnership will identify opportunities to enhance Energy Independence and Security Act (EISA) evaluations and water conservation measures at DOT buildings. It will also help to increase the number of High Performance Sustainable Buildings (HPSBs) within DOT. Finally, the partnership will identify opportunities to improve fleet performance by reducing petroleum consumption and increasing alternative fuel use in DOT vehicles.

Other key partners are FAA Real Estate Management System (REMS) managers, the Environmental Protection Agency, the Office of the Federal Environmental Executive (OFEE), the Council on Environmental Quality (CEQ), the Office of Management and Budget (OMB), the General Services Administration (GSA), and Department of Housing and Urban Development (HUD). Through community outreach programs and the DOT-EPA-HUD Partnership for Sustainable Communities, DOT works with local community, academic, and social organizations to carry out the Department's commitment to sustainability.

As a key member of interagency workgroups, DOT has worked closely with GSA and DOE to provide comments and recommendations on government-wide issues related to HPSBs, the greenhouse gas emissions inventory, and the employee commuter choice survey. Conversely, DOE, CEQ, and OMB serve as oversight agencies, which issue guidance and review DOT's annual sustainability and energy-related reports.

RESPONSIBLE OFFICIAL

Winifred Turner, Deputy Director, Office of Facilities, Information, and Asset Management, OST Office of Administration.

REDUCED POLLUTION OR OTHER ADVERSE ENVIRONMENTAL EFFECTS FROM DOT-OWNED OR -CONTROLLED SERVICES AND FACILITIES (MARAD)

WHY IS THIS EFFORT NECESSARY?

MARAD is the U.S. government's disposal agent for Federal government-owned merchant-type vessels that exceed 1,500 gross tons. The Ship Disposal Program provides resources to safely remove and dispose of obsolete (non-retention) government-owned merchant ships moored in National Defense Reserve Fleet (NDRF) sites in an environmentally sound manner.

NDRF vessels are moored in fleet sites located in Virginia, Texas, and California. By agreement with the Navy, MARAD also removes for disposal non-combatant naval vessels located in Pennsylvania and Hawaii that have been decommissioned. The MARAD and Navy fleet sites are all located in ecologically sensitive estuarine environments. For this reason, MARAD's goals are to minimize the time that the non-retention MARAD and Navy vessels remain moored in the five fleet sites and to ensure that any non-retention vessels that are designated as a high disposal priority, due to poor material condition, are removed for disposal within 12 months of being designated as high priority.

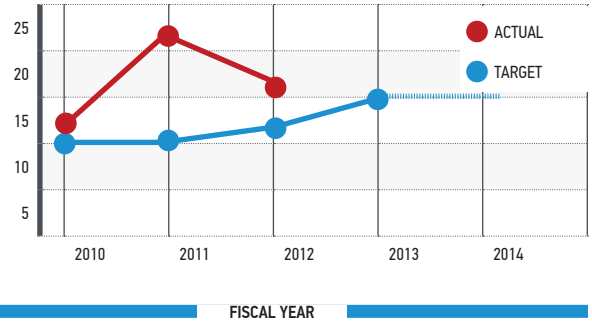
STRATEGIC OUTCOME AND SUPPORTING PERFORMANCE MEASURES

Increased use of environmentally sustainable practices and a reduction in pollution and other adverse environmental effects from DOT-owned or -controlled transportation services and facilities.

Remove 12 Obsolete Vessels from the National Defense Reserve Fleet (NDRF) in FY 2014

	2010	2011	2012	2013	2014
Target	10	10	12	15	12
Actual	12	21	16		

Obsolete NDRF Vessels Removed for Disposal



PAST PERFORMANCE AND FUTURE MILESTONES

MARAD has exceeded its target for removal of vessels from the NDRF for FY 2010, 2011, and 2012. For 2013, MARAD has established a target of removing 15 vessels from the NDRF and Navy fleet sites, and removal of 12 in 2014. The removal of Navy vessels has been included in MARAD's vessel removal metric since 2012. As of January 1, 2013, there were 33 non-retention NDRF vessels and 4 decommissioned Navy vessels awaiting removal for disposal. The 33 NDRF vessels awaiting removal is a historically low number of vessels in the disposal queue.

ENABLING LEGISLATION AND REGULATIONS

- Section 40 U.S.C. 548—Establishes MARAD as the U.S. government's disposal agent for Federal government owned merchant-type vessels exceeding 1,500 gross tons.

HOW OUTCOMES WILL BE ACHIEVED

PRIMARY ACTIVITIES SUPPORTING THIS OUTCOME

- Conducting ship recycling for obsolete, Federally owned, merchant-type vessels in an environmentally responsible manner that further reduces the risk of environmental contamination;
- Preventing the potential spread of invasive species by cleaning NDRF ships of marine growth on drydock or with approved in-water hull cleaning methods prior to removing from the area; and,
- Conducting open and competitive solicitations for ship disposal services in a manner that minimizes government costs and takes advantage of the capacity of the domestic ship recycling industry.

ENABLING LEGISLATION AND REGULATIONS

- Section 40 U.S.C. 548—Establishes MARAD as the U.S. government's disposal agent for Federal government-owned merchant-type vessels exceeding 1,500 gross tons.
- Section 3502 P.L. 106-398—Authorizes MARAD to dispose of obsolete vessels through a program that utilizes qualified facilities and disposes of vessels on a best-value basis in a timely manner and giving consideration to the environment of water safety and health.
- U.S. Coast Guard implementing regulations to the National Invasive Species Act that requires the removal of marine growth from the hulls of non-retention vessels prior to removal of the vessels for disposal in a different biogeographical area.

RESOURCES, TRAINING, AND SKILLS

- IT—Systems used to accomplish program activities and assist with planning and budgetary analysis include Delphi for financial management, PRISM for service acquisition, and Microsoft Access, Excel, and Project.
- Training—Needs identified in support of ship disposal activities include training for the Contracting Officer's Technical Representative, marine engineering, and project management.
- Skills—The skills needed to support program activities and outcomes include environmental regulation compliance, legal analysis and support, contract administration, and project management.

PARTNERS

Department of Defense; States of California, Virginia, Maryland, Louisiana, and Texas; Occupational Safety and Health Administration; Environmental Protection Agency; and United States Coast Guard.

RESPONSIBLE OFFICIAL

Kevin Tokarski, Associate Administrator for National Security, Maritime Administration.

REDUCED CARBON EMISSIONS, IMPROVED ENERGY EFFICIENCY, AND REDUCED DEPENDENCE ON OIL (FTA)

WHY IS THIS EFFORT NECESSARY?

The extent of the Intergovernmental Panel on Climate Change's projections for climate change is dependent on the level of greenhouse gas emissions. The transportation sector contributes 29 percent of total U.S. greenhouse gas emissions. Transit passenger-mile emissions are around half of the emissions produced by personal vehicles. Therefore, greater transit mode-share can help reduce transportation emissions. FTA is committed to promoting transit use and to the integration of environmental sustainability principles into transit grantees' projects and activities. FTA provides guidance and assistance to achieve a more efficient and less costly environmental process for all FTA-funded proposals that may substantially affect environmental quality.

STRATEGIC OUTCOME AND SUPPORTING PERFORMANCE MEASURE

Reduced carbon emissions, improved energy efficiency, and reduced dependence on oil.

Increase the Percentage of Alternative-Fuel and Hybrid Vehicles in the Transit Fixed-Route Revenue Service Fleet to 48 Percent in FY 2014

	2010	2011	2012	2013	2014
Target	NA	45%(r)	46% (r)	47% (r)	48%
Actual	44%(r)	45%			

(r) Revised

Future milestones include:

- Research and promote the use of environmentally friendly equipment in transit infrastructure construction and operations.

HOW OUTCOMES WILL BE ACHIEVED

FTA will continue to fund a significant number of energy-efficient transit vehicles through other grant programs.

PRIMARY ACTIVITIES SUPPORTING THIS OBJECTIVE

- Research grants for new, low-emission bus technologies;
- Grants from FTA's major formula programs are currently used by recipients to fund the purchase of alternative fuel vehicles; and,
- Providing technical assistance on incorporating emissions mitigation and climate change adaptation into the planning process and into the development of major capital projects.

ENABLING LEGISLATION AND REGULATIONS

- 49 U.S.C. 5312 authorizes FTA to support research activities related to low- or no-emission bus and bus facilities to minimize environmental impact and improve air quality.
- 49 U.S.C. 5313 may authorize funding for research that supports the goal of increasing the percent of alternative-fuel and hybrid vehicles in the transit revenue service fleet.

RESOURCES, TRAINING, AND SKILLS

- IT—FTA maintains information as part of its National Transit Database and also on the agency's grants management systems.
- Training—Train staff on environmental assessment, emissions, and climate adaptation concepts.
- Skills—FTA's engineers, planners, grants managers, environmental specialists, and policy analysts are involved in these activities.

PARTNERS

FTA's partners in this effort include transit agencies, State DOTs, local governments, and metropolitan planning organizations.

RESPONSIBLE OFFICIAL

Lucy Garliauskas, Associate Administrator, Planning and Environment; and Robert Tuccillo, Associate Administrator/ Chief Financial Officer, Federal Transit Administration.

U.S. Department
of Transportation

Office of the Secretary of Transportation

Assistant Secretary for Budget &
Program Performance

1200 New Jersey Avenue, SE
Washington DC 20590