HIGHWAY SAFETY

Improving the safety of the Nation's transportation system is the top priority of Secretary Mineta. DOT's central strategies for reducing fatalities and injuries on the Nation's highways are to reduce alcohol-impaired driving, increase safety belt use and improve the safety of commercial vehicle operations. Three Operating Administrations are the key contributors to the Highway Safety goal: the National Highway Traffic Safety Administration (NHTSA), the Federal Highway Administration (FHWA) and the Federal Motor Carrier Safety Administration (FMCSA).

NHTSA. Highway crashes cause 95% of all transportation-related fatalities and 99% of transportation injuries, and are the leading cause of death for Americans age 3 through 33. Alcohol is still the single biggest contributing factor in fatal crashes. While declining for the second year in a row (-2.4%), fatalities in alcohol-related crashes still claimed 16,694 lives in 2004, falling below 17,000 fatalities for the first time in five years. In 2004, approximately 12% of all people killed in motor vehicle incidents were involved in a crash with a large truck, yet trucks represented less than 4% of registered vehicles and approximately 8% of the vehicle miles of travel. Eighteen percent of Americans still do not use safety belts all of the time when driving motor vehicles. The large number of crashes has placed a considerable burden on the Nation's health care system and has had significant economic effects. The cost to the economy of all motor vehicle crashes is approximately $230.6 billion, or 2.3% of the U.S. gross domestic product.

FHWA. The FHWA safety-related programs yielded multiple benefits for communities across the United States, including a reduction in the number of specific types of crashes and improvements in system conditions and operations. Highway construction programs contributed to safety by improving unsafe roadway design and operations, improving the condition of bridges, and removing roadway hazards. The continued use of Road Safety Audits assisted communities with safety improvements during the construction of new roadways and reconstruction of existing roadways. FHWA influenced decisions to increase staffing, funding, and coalition partnerships for safety initiatives in Maine, Illinois, Minnesota, and States along the I-95 corridor.

FMCSA. Based on preliminary estimates for FY 2005, the number of deaths in crashes involving large trucks decreased by almost 21% from its all-time high in 1979. Additional long-term accomplishments include:

- The rate for large truck fatalities involving alcohol has declined by more than two thirds over the last decade.
- Six states, Alabama, Connecticut, Maine, New Jersey, Utah, and Washington currently meet the FY 2008 target fatalities per 100 million Truck Vehicle-Miles Traveled (TVMT).

While these long-term accomplishments are significant, FMCSA needs to continue to work towards achieving its performance targets. To that end, FMCSA initiated the Comprehensive Safety Analysis (CSA) 2010 project, to reach the next level of safety. The CSA 2010 project is examining the foundation of all of FMCSA's safety programs, exploring new enforcement regimes, and revisiting many existing practices and procedures to increase and sharpen the agency's focus on improving safety.

2005 Results. DOT did not meet the highway fatality rate. However, as a direct result of DOT's programs, motor vehicle travel has become significantly safer. The overall fatality rate declined from 3.35 in 1980 to a revised 1.46 fatalities per hundred million vehicle miles traveled in 2004—the lowest fatality rate in our Nation's history. DOT projects that in 2005, the fatality rate dropped even further—to 1.43. Final figures for FY 2005 will be reported in next year's report.

Performance Measure

Highway fatalities per 100 million vehicle-miles traveled (VMT).

	2002	2003	2004	2005
Target	1.4	1.4	1.38	1.38
Actual	1.51	1.48	1.46 (r)	1.43 *

(r) Revised; * Preliminary estimate

Early estimates for roadway departure fatalities, which include run-off-the-road and head-on fatalities, are 24,848 fatalities in FY 2004, a slight reduction from FY 2003. Preliminary fatalities for intersection-related fatal crashes are 8,887 and 4,641 for pedestrian-related fatalities. These estimates also represent slight reductions from FY 2003.

FY 2006 Performance Forecast. The Department will likely fall short of the Administrator's goal of 1.38 fatalities per 100 million VMT in 2006 if the trends remain the same.

2005 Results. Preliminary estimates for FY 2005 indicate fatalities increased from a rate of 2.34 per 100 million Truck Vehicle-Miles of Travel (TVMT) in 2004 to a rate of 2.35 per 100 million TVMT in FY 2005, and as a result FMCSA will not meet its annual target. FMCSA and its State partners have made, over the long run, solid progress in reducing both the number and rate of fatalities involving large trucks despite yearly increases in both TVMT and the number of vehicles traveling our Nation's roads,. These latest trends indicate that after years of steady progress in reducing large truck-related fatality rates, FMCSA may have achieved most of the safety improvements it can expect using current operational practices and procedures. In response, FMCSA in FY 2005 initiated the Comprehensive Safety Analysis (CSA) 2010 project to reach the next level of safety.

Performance Measure

Fatalities involving large trucks per 100 million truck VMT.

	2002	2003	2004	2005
Target	2.32	2.19	2.07	1.96
Actual	2.30	2.33 (r)	2.34 (r)	2.35 *

(r) Revised; * Preliminary estimate

FY 2006 Performance Forecast. FMCSA does not anticipate meeting its FY 2006 target but is working to reduce the rate of fatalities involving large trucks.

IN-DEPTH ACCOMPLISHMENTS PROMOTING HIGHWAY SAFETY

NHTSA

Using a performance-based management process, NHTSA awarded $115.3 million in State and community highway safety formula grants. States used this and their own funds to:

- reduce speed-related fatalities;
- encourage proper use of occupant protection devices;
- reduce alcohol and drug impaired driving;
- reduce crashes between motorcycles and other vehicles;
- reduce school bus crashes;
- improve police traffic services;
- improve emergency medical services and trauma care systems;
- increase pedestrian and bicyclist safety; and
- improve traffic record systems.

The grants also provided support for State data collection and reporting of traffic deaths and injuries.

Safety Belts

In the past four years, safety belt use has increased steadily from 71% in FY 2000 to 82% in FY 2005. The 82% safety belt usage will save 15,700 lives and $67 billion in economic costs associated with traffic-related crashes, injuries, and deaths every year. Belt use is statistically higher in states with primary belt enforcement laws than in states with secondary laws, and higher in urban or suburban areas than in rural areas. In FY 2005, states that allowed more stringent enforcement of their belt use laws ("primary" states) reached a milestone of 85% belt use. Primary enforcement allows law enforcement officers to issue a citation any time they observe an unbelted driver or passenger. Secondary enforcement only allows officers to issue a safety belt citation if the officer has stopped the vehicle for some other reason.

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Fatalities of unrestrained passenger vehicle occupants declined by 3.4%, which may reflect the increasing use of safety belts, and contribute to the overall reduction in passenger vehicle occupant fatalities. However, in FY 2004, 55% of those killed in passenger vehicles were still not wearing safety belts. Many times passenger vehicle occupants are killed in motor vehicle crashes when they are unbelted and ejected from the vehicle during a rollover event. In FY 2004, rollover deaths among passenger vehicle occupants increased 1.1% from 10,442 to 10,553.

In May 2005, NHTSA conducted a National Click It or Ticket campaign, while encouraging States to continue to conduct periodic high-visibility safety belt law enforcement mobilizations, during the ensuing summer months. The agency published new strategies and best practices from demonstration grants, included in the FY 2003 Occupant Protection Integrated Project Team report, which focuses on high-risk groups such as minorities, younger drivers, rural populations, pick-up truck occupants, 8-15 year old passengers, part-time safety belt users, and motor vehicle occupants in states with secondary safety belt

laws. Likewise, NHTSA reached out to new partners representing these populations to try to raise their lower-than-average safety belt use rates. In addition, NHTSA intensified media strategies through partnerships with the Ad Council and other outlets to develop messages to increase booster seat use among the 4 to 8 year-old age group.

Impaired Drivers

While alcohol-related fatalities declined for the second year in a row (-2.4% in FY 2005), alcohol-related crashes and their related mortality tolls continued to pose a significant public health challenge throughout the country. Alcohol-related crashes claimed 16,694 lives in 2004, falling below 17,000 fatalities for the first time in five years. In addition, fatalities declined by 1.8% in crashes where the highest blood alcohol concentration (BAC) was 0.08 grams per deciliter or greater. In continuing to combat this problem, NHTSA further enhanced its impaired driving prevention program, with continued emphasis on assisting high-risk populations (e.g., underage drinkers, 21 to 34 year-olds, individuals with high BAC or repeat offenders) in order to continue the current declining trend.

NHTSA made available more than $29.9 million to 34 States having alcohol-impaired driving countermeasure laws or programs, such as administrative license revocation laws and graduated licensing programs. Technical and program support was provided to ten States receiving Highway Safety program grants to conduct comprehensive impaired driving program assessments, countermeasure implementation and evaluation. Additionally, 49 States, the District of Columbia, and Puerto Rico received $61.3 million in incentive grants for lowering the legal threshold for impaired driving to .08 BAC. With Minnesota's .08 BAC legislation taking effect in August 2005, now all 50 States, the District of Columbia, and Puerto Rico have enacted .08 BAC laws.

Safer Vehicles

To improve tire safety, NHTSA published the final rule for Tire Pressure Monitoring Systems to begin phase-in of new requirements with 2006 model year vehicles. By 2008, all new 4-wheeled vehicles weighing 10,000 pounds or less must be equipped with a monitoring system that meets the new requirements. NHTSA estimates that about 120 lives a year will be saved when all new vehicles are equipped with the tire pressure monitoring systems. Under the New Car Assessment Program, NHTSA conducted and released results of its frontal and side crash tests, rollover ratings, child safety seat ease-of-use results, and information for consumers on vehicle safety features available as standard or optional equipment. The agency re-issued its warning to users of 15-passenger vans because of an increased rollover risk under certain conditions. In a new research report related to improper tire maintenance on 15-passenger vans, the NHTSA study found that 74% of all 15-passenger vans had significantly mis-inflated tires. NHTSA research has consistently shown that improperly inflated tires can change handling characteristics, increasing the prospect of a rollover crash in 15-passenger vans.

Similar warnings were issued in 2001, 2002, and 2004. The public is responding to safety information about 15-passenger vans. Fatalities from 15-passenger van rollover crashes have declined 35% since advisories began in 2001.

From Calendar Year (CY) 2001 through May 2005, there were 1,801 recalls for safety-related defects and 435 of these recalls—representing about 41.8 million vehicles and 337,000 equipment items—were influenced by NHTSA investigations. During this same period, there were 381 recalls to correct noncompliances with Federal motor vehicle safety standards. In 2003, NHTSA established a separate

category for child safety seat recalls. Formerly, these were shown as equipment recalls. From CY 2001 through May 2005, there were four NHTSA-influenced child safety seat recalls that involved nearly 5 million seats, and one NHTSA-influenced tire recall that involved 2.8 million tires. Information on NHTSA's rollover ratings, five star crash tests, defect investigations and safety recalls can be found on the agency's newly redesigned Web site, www.safercar.gov, which was reconstructed to be more consumer-friendly.

FHWA

Roadway Departure and Intersection Safety

FHWA pursued improved roadway departure safety through improvements in engineering, education, and enforcement. As part of its comprehensive safety program, FHWA engineers worked closely with State highway engineers and law enforcement officials to identify appropriate engineering safety countermeasures for high-risk locations and new roads. For instance, they worked on promoting greater use of roadway improvements such as, upgraded guardrails and rumble strips, encouraging greater use of retro reflective signage and improved markings, and removing of roadside hazards. FHWA worked with industry partners to promote a National Agenda for Intersection Safety, which includes a number of solutions and strategies, such as: engineering and technology improvements, intersection safety audits, red-light cameras, training for local safety professionals, and increasing public awareness.

The Intelligent Transportation Systems (ITS) Program continued to develop technology-based systems that could significantly reduce intersection crashes. At the new intersection safety test facility, FHWA is developing an Intersection Collision Avoidance System to help drivers avoid crashes at intersections. Pedestrian fatalities are also a significant issue. FHWA targeted the cause of crashes in major urban areas and select rural locations and facilitated community-based programs that fully and safely accommodated pedestrians.

Highway Safety Planning

FHWA, the American Association of State Highway and Transportation Officials (AASHTO) and other National organizations jointly hosted a National Safety Leadership Forum to advance the Lead States initiative and strategic safety plans. FHWA continues to promote the AASHTO Strategic Highway Safety Plan, which includes an outreach program to encourage lead states to develop strategic highway safety plans. Effective plans include strong crash data systems, a statewide goal for reducing deaths within a set period of time, and stakeholder safety teams dedicated to supporting the effort. Twenty states currently have statewide strategic highway safety plans and 11 more are actively developing plans.

FMCSA

Compliance and Enforcement

Regulatory standards continue to provide the cornerstones of FMCSA's compliance and enforcement mission. In 2005, the Agency issued rules concerning: hours of service, Title VI regulations for financial assistance, rules of practice, transportation of household goods, and, parts and accessories necessary for

safe operation. In addition to providing technical assistance to industry and the public, FMCSA has processed in excess of 1,000 e-mails and over 35,000 phone calls concerning safety regulations. Additionally, FMCSA processed through the Internet Web site www.pay.gov:

- 7,721 operating authority applications;
- 3,703 reinstatements of operating authority;
- 471 voluntary revocations;
- 21,173 new MCS-150 (Motor Carrier Identification Report) applications;
- 25,205 MCS-150 updates;
- 27 cargo tank facility manufactures' applications; and,
- 159 cargo tank updates.

During FY 2005, FMCSA continued to place a high priority on enforcement and compliance operational activities. FMCSA obligated $100 million to States for motor carrier compliance and enforcement activities to complement Federal operations. Working closely with its State partners in coordination with the OIG, FMCSA initiated five strike force operations in targeting household goods carriers (HHG) and conducted its first ever roadside inspections of HHG Commercial Motor Vehicles (CMVs), resulting in the initiation of two enforcement cases. FMCSA completed 380 commercial investigations and continues to focus on and increase enforcement actions against unscrupulous HHG movers, with the addition of three positions dedicated to HHG activities. Additionally, FMCSA completed the second year of a two-year study of HHG dispute settlement programs. During FY 2005, Federal and State safety enforcement operations to ensure compliance with Federal motor carrier safety regulations included:

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- 978 border safety audits;
- 3,196 conditional carrier reviews;
- 33,925 new entrant safety audits;
- 12,449 safety compliance reviews;
- 353,357 border inspections; and
- 2,941,231 roadside inspections.

In FY 2005, the number of States participating in the Performance and Registration Information Safety Management system, an initiative that links the safety records of motor carriers with their ability to register their vehicles, increased by 5 to a total of 42; and, enforcement operations resulted in FMCSA initiating 4,164 enforcement cases.

Education and Outreach

As of June 2005, FMCSA provided commercial motor vehicle (CMV) safety training for over 5,890 State and local law enforcement personnel.

FMCSA continues to focus on increasing CMV driver safety belt usage through increased partnering activities, research, education and outreach materials and enforcement. FMCSA has been working closely with NHTSA to increase safety belt use among CMV drivers and has transferred funds to conduct two CMV safety belt studies. Also, FMCSA funded a study conducted by the Transportation Research Board on industry practices and motivational factors for CMV safety belt use.

FMCSA is piloting an education/enforcement program aimed at eliminating aggressive driving behaviors around large trucks and passenger cars, which will result in the reduction of large truck crash fatalities and injuries. FMCSA has also implemented a Passenger Carrier Safety Program to reduce fatalities, injuries, and crashes. Additionally, FMCSA has developed several brochures for the passenger motor coach industry and has implemented a Web-based information source for safe interstate passenger transportation to help consumers consider safety issues when selecting a passenger transportation company.

Driver Identification and Qualification

Medical qualifications of CMV drivers remain an area of focus. As of June 2005, FMCSA completed a draft Charter for the Medical Review Board, reviewed over 693 applications for vision exemptions and 57 applications for diabetes exemptions, and, amended medical standards by publishing new Blood Pressure Guidelines.

Research, Technology and Safety Information

FMCSA's research and technology (R&T) programs provide advances and innovations to improve CMV safety. The agency completed the pilot testing of the Commercial Truck Simulator Validation (Sim Val) Study and completed updates for the following reports:

- Estimates of the prevalence and risk of fatigue in fatal crashes,
- Comparison of the 10- and 11-hours of driving critical incident data, and
- Measuring sleep quantity using actigraphy data.

FMCSA also completed the Safety Belt Best Practices Synthesis Report, provided research support to the Secretary of Transportation's Safety Belt initiative; and published reports on:

- CMV driver fatigue and driver health;
- CMV driver safety belt usage;
- Hours of service and fatigue management techniques;
- Individual differences and the "high risk" driver;
- Sleep apnea crash risk study; and
- Pilot test of fatigue management technologies.

Better understanding of the factors contributing to large truck and motor coach crashes is critical to developing agency programs, policies and safety interventions. In FY 2005, FMCSA continued to provide technical support to States to deploy Commercial Motor Vehicle Information Systems and Networks and completed statistical analysis of the Large Truck Causation Study.

FMCSA initiated Comprehensive Safety Analysis (CSA) 2010, an ambitious program to realign, strengthen, consolidate where possible, and focus its safety programs and enforcement operations. The results of the analysis will be used to assist the Agency in refocusing existing and developing new analytic techniques and methods to identify potentially unsafe drivers. When fully implemented, CSA 2010 will provide FMCSA a new operational model that will greatly enhance the Agency's safety performance by significantly expanding its ability to reach and thoroughly evaluate a significantly larger portion of the regulated population, both carriers and drivers.

AVIATION SAFETY

Commercial aviation is one of the safest forms of transportation. While rare, aviation accidents can have catastrophic consequences, with large loss of life; as a result, the public demands a high standard of safety and expects continued improvement.

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FAA's role in commercial aviation is well known, less known is the fact that it also oversees the safety of almost 300,000 general aviation aircraft in the United States. These aircraft include single-seat home-built airplanes, rotorcraft, balloons, and highly sophisticated extended-range turbojets. General aviation activities include student training, crop dusting, fire fighting, law enforcement, news coverage, sightseeing, industrial work, on-demand air taxi service, corporate transportation, as well as personal use and recreational flying. The majority of aviation fatalities have occurred in this segment of aviation. Since 1988, there has been a gradual trend downward in the number of general aviation accidents, but progress has not been steady.

2005 Results. Based on the preliminary estimate, DOT met the commercial aviation fatal accident rate. This is one of the safest periods in aviation history. The National Airspace System operates 32,000 scheduled commercial flights daily. Based on the preliminary estimate, FAA exceeded its FY 2005 goal of reducing the airline fatal accident rate to a three-year rolling average rate of 0.023 per 100,000 departures. The actual figure of 0.017 fatal accidents per 100,000 departures translates to about one fatal accident per 5.9 million departures. Since the last fatal jet airliner accident involving passengers in November 2001, over two billion airline passengers have safely reached their destination.

Performance Measure

U.S. commercial fatal aviation accidents per 100,000 departures (Last 3-years' average).

	2002	2003	2004	2005
Target	.038	.033	.028	.023
Actual	.026	.024	.021 *	.017 *

* Preliminary estimate

FY 2006 Performance Forecast. FAA is on track to meet the performance target in FY 2006.

2005 Results. Based on the preliminary estimate, DOT failed to meet the general aviation fatal accident target. FAA was challenged to meet the target this year for reducing General Aviation (GA) fatal accidents. GA fatal accidents ran higher each month than the previous year. The agency believes that increased flight activity, the increased use of turbine aircraft, and pilots exceeding their limitations were leading factors.

Performance Measure

Number of fatal general aviation accidents.

	2002	2003	2004	2005
Target	379	374	349	343
Actual	348	360 (r)	340 *	350 *

(r) Revised; * Preliminary estimate

FY 2006 Performance Forecast. FAA may not meet the performance target in FY 2006.

IN-DEPTH ACCOMPLISHMENTS PROMOTING AVIATION SAFETY

Commercial Air Carrier Safety. While maintaining its regulatory and enforcement role, FAA continues to partner with the aviation community in improving safety, which is reflected in three basic long-term strategies:

- prevent accidents by addressing recurrent causes;
- improve certification and surveillance; and
- share safety data and information with aviation partners.

These strategies are at the heart of most of FAA's significant and long-term safety programs.

FAA also worked in FY 2005 to increase aviation safety by preventing fuel tank explosions. The agency submitted a Notice of Proposed Rulemaking for inerting flammable fuel vapors. This process involves reducing levels of flammable vapors in fuel tanks to meet the level achieved when fuel tanks are made chemically unreactive. This rule would apply to current aircraft in service, new production aircraft, and new kinds of aircraft designs in the transport category.

FAA continued efforts to improve use of onboard technology that can enable pilots to navigate aircraft to any point in the world using only geographical coordinates. Required Navigation Performance (RNP) is an important step in moving the United States from an exclusively ground-based navigation system to one located within the aircraft itself. By providing pilots precise guidance to all runways, RNP can help prevent two major types of accidents—controlled flight into terrain and accidents that occur during the approach and landing phase of flight. In addition, RNP will enable pilots to land in weather conditions that would ordinarily require diversion to alternate airports. FAA continued its emphasis on improving Runway Safety Areas (RSAs). In FY 2005, FAA exceeded its goal of improving 41 RSAs by completing improvements to 50 RSAs.

In addition to these safety initiatives, FAA also engaged in hands-on preventative measures in FY 2005, such as increased security screening of cargo to root out fireworks and other hazardous materials. Those efforts aided in the detection of many undeclared hazardous materials, allowing FAA to safeguard airline passengers through increased investigation of violations of hazardous materials regulations.

General Aviation Safety. To improve safety awareness and training, the FAA works collaboratively with the General Aviation community, while continuing to enhance the Aviation Safety Program. The General Aviation Joint Steering Committee, a partnership of the FAA and major general aviation associations, recently created a turbine operations subgroup. The group identified actions to encourage charter and corporate operators to adopt safety management systems. In addition, the JSC continues its work to improve safety for operators of single-engine airplanes.

Reducing Precursors. FAA has identified runway incursions and operational errors as significant precursors to fatal accidents in both commercial and general aviation. Reducing these incidents is critical to reducing fatalities in aviation.

Runway Safety. A runway incursion is any occurrence at an airport involving an aircraft, vehicle, person, or object on the ground that creates a collision hazard or results in a loss of separation with an aircraft taking off, intending to take off, landing, or intending to land. Reducing runway incursions lessens the probability of accidents that potentially involve fatalities, injuries, and significant property damage.

For the third year in a row, serious runway incursions are down. The number of the most serious types of runway incursions is projected at 29, which is lower than the FAA's performance limit of 36 for FY 2005.

The agency continues to develop and coordinate efforts to improve runway safety including a variety of education and awareness materials focused on air traffic controllers, pilots and airport drivers to help reduce the number of serious runway incursion incidents. Other tools, such as air traffic control memory aids, better airport surface markers, and public service announcements, have contributed to the reduction in incursions.

A new runway technology system was deployed in FY 2004 to reduce the potential for runway collisions at major U.S. airports. Airport Surface Detection Equipment, Model X (ASDE-X) was first commissioned at General Mitchell International Airport in Milwaukee, WI. This equipment maps moving objects on the airport grounds or those approaching by air, which helps controllers detect potential runway collisions. In FY 2005, FAA deployed ASDE-X at three additional locations. The agency expects to install this equipment at 14 additional U.S. airports by FY 2009.

Operational Errors. One of the fundamental principles of aviation safety is separation—the need to maintain a safe distance from other aircraft, terrain, obstructions, and restricted airspace. Air traffic controllers employ rules and procedures that define separation standards for this environment. An operational error occurs when controllers fail to apply or follow these procedures that enforce separation and allow aircraft to end up too close to each other or an obstruction.

The FAA estimates that it will exceed the FY 2005 performance limit of 637 most serious operational errors by more than 6% (680 operational errors). Although FAA did not meet its target, it has instituted performance management and communication initiatives in FY 2005 that are already helping to make improvements, some of which are identified below:

- Certification skills checks, focusing on operational error causal factors, were conducted on all control room personnel;
- FAA began conducting regular quality assurance teleconferences with air traffic facilities and producing a regular newsletter for controllers to highlight causal factors, trends solutions, procedures, and training;
- Two Air Traffic Organization units, En Route and Oceanic Services and Terminal Services, have worked with the Controller Training Division to improve training content and identify simulation solutions to enhance the performance of developmental air traffic control specialists and the current full-performance level workforce.

In FY 2006, FAA will continue its performance management and communications initiatives, refine the operational error severity classification process to ensure an accurate identification of the risk posed by an operational incident, and review a procedural change for aircraft operating on crossing and diverging courses to provide additional operational efficiency while maintaining safety.

RAIL SAFETY

Chief among the many achievements during FY 2005 was the unveiling by Secretary Mineta of the National Rail Safety Action Plan. The plan will help prevent train accidents caused by human error, improve the safety of HAZMAT shipments, minimize the dangers of crew fatigue, deploy state-of-the-art technologies to detect track defects, and focus inspectors on safety trouble spots. To accomplish this, Federal Railroad Administration will accelerate its research into tank-car structural integrity for increased crash survivability; help ensure that emergency responders have accurate and timely access to consist information following a train accident involving hazmat; and identify promising technologies to reduce the risk of train accidents in territory without signals where hazmat are transported.

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2005 Results. For the 10-month period October 2004–July 2005, total rail-related accidents fell 8.4%, from 11,944 to 10,943, while total casualties (fatalities and injuries) declined 6.5%, from 8,288 to 7,749. These dramatic reductions accompanied a modest 3.0% drop in train accidents, from 2,667 to 2,586. A primary reason for the reductions was a greater emphasis by the railroad industry on reducing employee-on-duty casualties, particularly within rail yards. FRA has worked extensively with the industry over the past two years to better protect the activities of rail employees involved in dangerous switching operations.

Performance Measure

Rail-related accidents and incidents per million train miles.

	2002	2003	2004	2005
Target	N/A	N/A	17.49	17.14
Actual	20.04 (r)	19.33 (r)	18.73 (r)	16.79 *

(r) Revised; * Preliminary estimate

As mentioned in the FY 2004 PAR, the measure was revised to capture an expanded universe of data. FAR reviewed the data on-hand has provided updated historical data to include the new categories now factored into the measure. Previously, FRA had reported that they met the performance target for FY 2004; however the preliminary estimate was based on six months of data. Once the final data was received FRA found that in some cases initial reports from railroads either under reported its data, or reports were revised to reflect the final numbers which had increased.

FY 2006 Performance Forecast. Based on current projections, FRA should meet the FY 2006 target for the rail-related accidents rate.

TRANSIT SAFETY

Public transit provides a flexible alternative to traveling by automobile, offering a higher degree of safety as well. Currently, transit is one of the safest modes of travel per passenger-mile traveled. According to the National Safety Council, riding the bus is 47 times safer than traveling by car. The challenge is to further reduce the rate of fatalities and injuries even as the total number of people using transit increases.

2005 Results. Although preliminary estimates suggest DOT will not meet the target for FY 2005, initial data does not include all data sources. Historical trends indicate that this number will be reduced once the data is finalized.

FY 2006 Performance Forecast. DOT will meet the FY 2006 target.

Performance Measure

Transit fatalities per 100 million passenger-miles traveled.

	2002	2003	2004	2005
Target	.492	.492	487	482
Actual	.473	.461	359 *	492 *

* Preliminary estimate

In 2005, FTA's strategy for further reducing the low rate of transit fatalities included:

- Continued investment in new, safer bus and rail vehicles, and improvements to track and transit facility conditions.
- Continued safety design consideration for new projects from project inception.
- Safety technical assistance to improve technology and training programs and compliance with the Americans with Disabilities Act's safety requirements by providing FTA planning and research funds to assist States, local transit authorities, and the transit industry.
- Continued support of the Transportation Safety Institute's (TSI) safety and security training program, which provided 29 safety and security training courses to over 4,900 transit employees. Training courses included accident prevention and investigation, emergency management, industrial safety, alternative fuels, bus operator safety, and fatigue awareness.

IN-DEPTH ACCOMPLISHMENTS PROMOTING TRANSIT SAFETY

- Continued oversight of the States' programs for Safety Oversight of Rail Systems to ensure they are in compliance with the requirements of the State Safety Oversight Rule for Rail Fixed Guide way Systems.
- Worked with partners—the American Public Transportation Association (APTA), the Community Transportation Association of America (CTAA), and the American Association of State Highway and Transportation Officials (AASHTO)—to implement and promote the Model Transit Bus Safety and Security Program. This included developing technical assistance documents for small/rural, medium, and large transit agencies on security, driver selection and training, vehicle maintenance, and drug and alcohol abuse programs.

PIPELINE SAFETY

While pipelines are among the safest modes for transporting hazardous liquids and natural gases, the nature of their cargo is inherently dangerous, and pipeline failures can pose an immediate threat to people and communities.

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Excavation damage during construction causes 30% of pipeline failures for all types of pipelines, corrosion causes another 18% of failures, and natural forces such as earthquakes cause 9% of failures. Incorrect operation, construction/material defects, equipment malfunction, failed pipes, and other miscellaneous causes account for the remaining 43% of pipeline failures. PHMSA is closely monitoring the number of incidents in gas transmission and gas distribution lines which were increased in the past two years. PHMSA is also evaluating whether a substantial increase in natural gas prices in the past two years contributed to the increase in the number of reportable incidents in natural gas pipeline systems (a reportable incident involves either a death or injury or at least $50,000 of property damage, which includes value of product lost). In the past 10 years, there have been 22 fatalities annually related to natural gas or hazardous liquid pipeline failures.

The Pipeline Safety Improvement Act of 2002 reinforced and strengthened PHMSA programs to assure the long-term integrity and security of existing pipelines. The Act improved the tools available to address the causes of pipeline failure. The Act required integrity management programs for gas transmission pipelines, enhanced pipeline safety research, added better means to evaluate operator qualification, strengthened the oversight role of the States, and increased PHMSA's enforcement authority.

2005 Results. Based on the preliminary data for FY 2005, PHMSA expects to miss the FY 2005 performance target. The pipeline industry continues to face challenges due to an expanding economy that brings an increase in new housing and commercial construction as well as an increase in pipeline mileage. The construction activity adds more risk of pipeline excavation damage, especially in gas transmission and gas distribution lines.

Performance Measure

Number of incidents for natural gas and hazardous liquid pipelines.

	2002	2003	2004	2005
Target	343	326	310	295
Actual	330 (r)	369	429 (r)	396 *

(r) Revised; * Preliminary estimate

In 2003 and 2004, pipeline incidents reflected the impact of economic activities as incidents increased due to excavation damages to gas distribution and transmission lines increased. The extrapolation for FY 2004 was based on January-June data available during the time of reporting. The second half of FY 2004, however, showed a steep increase in incidents.

Based on the first six months' incident reports in FY 2005, continuing construction expansion in commercial and housing markets, and steadily increased gas distribution mileage, PHMSA expects that pipeline incidents will continue to increase. A preliminary analysis of incident reports from Texas, Louisiana, Alabama and Mississippi, which were hit by Hurricanes Katrina and Rita, indicate the number of incidents is two or three times higher than past years due to the hurricanes.

The performance goal is to reduce all pipeline incidents by 5% per year, from 381 in FY 2000 to 280 in FY 2006. PHMSA is considering changing the incident reporting threshold to reflect the increased cost of gas.

FY 2006 Performance Forecast. Based on the preliminary data for FY 2005 and the reasons explained above, PHMSA expects to miss the FY 2006 performance targets.

IN-DEPTH ACCOMPLISHMENTS PROMOTING PIPELINE SAFETY

PHMSA is closely monitoring the upward movement of gas distribution and transmission incidents in the past two years (2003 and 2004) and is assessing strategies to achieve the targets previously set. PHMSA is aware that the preliminary estimate of the number of pipeline incidents may be underestimated at this point given the impact of Hurricanes Katrina and Rita on U.S. infrastructure. There could be a significant increase in the number of incidents in the August and September reports.

PHMSA has the following strategies for reducing natural gas and hazardous liquid pipeline incidents:

- Advancing the Integrity Management Program concepts throughout the entire system;
- Advancing damage prevention, particularly through enforcement efforts;
- Advancing public education—one initiative is the recently established nationwide three-digit telephone number for one-call centers to provide timely and consistent information on the location of underground utilities;
- Investing in technologies for better detection of defects and strengthening materials for repair; and
- Strengthening PHMSA's enforcement program through improved Federal/State Partnerships.

PHMSA's Integrity Management Program (IMP) started with hazardous liquid pipes and was extended to gas transmission lines. The IMP improves pipeline safety by:

- Accelerating assessments of pipelines in high consequence areas;
- Improving integrity management systems within companies;
- Improving the government's role in reviewing the adequacy of integrity programs and plans; and,
- Providing increased public assurance in pipeline safety.

HAZARDOUS MATERIALS SAFETY

Many of the materials used in manufacturing and many of the retail products people buy include hazardous materials (HAZMAT). There are over 800,000 HAZMAT shipments each day in the United States. These range from flammable materials and explosives to radioactive materials, poisons and corrosives. Release of these materials during transportation could result in serious injury or death, or harm to the environment.

PHMSA issues hazardous materials regulations in coordination with other parts of DOT and shares enforcement responsibility with FAA, FMCSA, and FRA, as well as the Department of Homeland Security's U.S. Coast Guard.

2005 Results. Based on preliminary estimates, DOT will meet the performance target. Road accidents leading to HAZMAT releases continue to dominate overall serious hazardous materials incident statistics, constituting 77% of total serious incidents in FY 2005. Serious rail incidents accounted for approximately 19% of the total. Serious air and water incidents accounted for the remaining 4%.

Performance Measure

Number of serious hazardous materials transportation incidents.

	2002	2003	2004	2005
Target	523	515	509	503
Actual	480 (r)	473 (r)	509 (r)	408 *

(r) Revised; * Preliminary estimate

FY 2006 Performance Forecast. DOT expects to meet its rebaselined, more ambitious target in FY 2006.

IN-DEPTH ACCOMPLISHMENTS PROMOTING HAZMAT SAFETY

DOT has six long-term strategies for reducing serious hazardous materials transportation incidents:

- Develop and maintain National standards for the safe, secure transportation of hazardous materials;
- Obtain compliance with these standards through formal training, and by development and distribution of education materials on specific Hazardous Materials Regulation (HMR) requirements to shippers, carriers, enforcement personnel and the public;
- With nearly 200,000 commercial motor vehicle (CMV) inspections per year, implement a National safety inspection and enforcement program to determine compliance with the HMR;
- Provide funds to States for planning and training to minimize hazardous materials incident consequences;
- Publish and distribute the Emergency Response Guidebook, the principal source document used by State and local response personnel and industry to handle hazardous material incidents; and,
- Conduct research and development to analyze and monitor hazardous materials transportation safety issues.

As part of the effort to increase HAZMAT safety FAA implemented a prioritized risk-based shipper inspection plan. This plan incorporates HAZMAT information electronically shared with other Operating Administrations and deployed as a searchable database for field agents.

The majority of serious hazardous material incidents that occur on our Nation's roads involve commercial motor vehicles (CMV). In 2004, FMCSA and its Federal and State partners minimized serious HAZMAT incidents involving CMVs to 375, exceeding its stated limit of 419 incidents. This was the result of better training of hazmat carrier employees and better-targeted enforcement activities.

Compliance with Regulations

In January 2005, FMCSA's final rule on Hazardous Materials Safety Permitting, establishing standards and procedures for motor carriers of specific high-hazard materials, became effective. FMCSA's safety enforcement operations conducted in FY 2005 to ensure compliance with Federal Hazardous Materials Regulations (HMR) include:

- 97 cargo tank facility reviews;
- 385 hazardous materials shipper reviews;
- 3,902 hazardous materials compliance reviews
- 7,474 hazardous materials package inspections; and,
- 186,871 hazardous materials vehicle inspections.

Safety Information and Technology

FMCSA is developing a hazardous material shipper prioritization algorithm to identify high-risk HAZMAT carriers, to better focus limited enforcement resources. FMCSA also completed identification and analysis of factors affecting cargo tank stability. The analysis will be used to evaluate the need for new technology requirements to stabilize cargo tanks, modifications to some high-risk intersections to reduce the likelihood of rollovers, and enhanced driver training.

FRA continues work to increase the safety of HAZMAT shipments. In FY 2005, FRA has continued work on many initiatives in the HAZMAT area. This includes but is not limited to:

- focusing enforcement efforts;
- visiting shippers with the highest number of incidents over the six-year period;
- tracking Hazardous Materials Incident Reports; and,
- tracking how many times FRA inspectors investigate an incident.

FRA continues to work with the Transportation Security Administration (TSA) to address security, and developed and implemented Administrative Guidelines to enhance inspection data quality and promote uniformity throughout all railroads. FRA reviewed all Class 1 railroad security plans (a Class 1 railroad is a carrier having revenue of $277,700,000 or more) and many regional and short-line railroads to ensure compliance with the current security related regulations. FRA continues to investigate concerns about HAZMAT tank cars, resulting in improved quality procedures at the impacted facilities, and perhaps leading to the recall of additional tank cars for further review.