

**TESTIMONY OF SECRETARY OF TRANSPORTATION FEDERICO PEÑA, BEFORE
SUBCOMMITTEE ON INVESTIGATIONS AND OVERSIGHT OF THE PUBLIC WORKS
COMMITTEE OF THE U.S. HOUSE OF REPRESENTATIVES, 10 FEBRUARY 1994**

Thank you for the opportunity to be here this morning to discuss transportation safety. I greatly appreciate your strong interest in safety, Mr. Chairman, and I believe safety is the single most important job we have in the Department of Transportation (DOT).

I am pleased to say at the outset that the efforts of everyone involved with safety in the nation's transportation system have paid substantial dividends. The Department's programs are working. Our partnerships with state and local governments in our safety programs are bearing fruit. The transportation industries are also committed to the safety of their customers, and many consumers of transportation services are displaying new, higher levels of safety consciousness.

A few simple statistics highlight the extent of this improvement. Since 1980, fatalities resulting from all transportation incidents have **dropped** 23%, while transportation activity has **increased** by 37%. The improvement in highway fatalities has been dramatic and accounts for most of the net change, going from 51,091 in 1980 to 39,235 in 1992, the latest year for which complete data are available. The improvement in aviation has been equally strong. System fatalities have fallen from 1,382 in 1980 to 782 in 1993, with no fatal accidents in 1993 involving passenger flights on major U.S. air carriers. Significant progress is being made in almost every mode by virtually any measure. No developed nation enjoys a safer transportation system than does the United States.

In spite of these improvements, I continue to regard transportation fatalities and injuries and their tragic human consequences as unacceptable. I know you will agree, Mr. Chairman, that any death in transportation is one death too many.

I have therefore undertaken in the Department a four-pronged approach to improving our safety performance:

- (1) making safe transportation the highest priority of the Department,
- (2) maximizing our cross-modal management of safety issues,
- (3) harnessing the potential of new safety technology, and
- (4) improving the use of information to better manage our safety resources.

With respect to the first point, DOT's strategic plan, which I introduced last month, reflects my commitment. A primary goal of the plan is *To Promote Safe and Secure Transportation*. The objectives under that goal are: 1) to significantly reduce deaths and injuries in our transportation system, which will reduce the burden on our health care system, and 2) to minimize the dangers to communities and industry associated with the transportation of goods.

I would like to emphasize that the Department's extensive safety activities are an important adjunct to the President's Health Care Program. Improving transportation safety, by helping people avoid death and injury, can significantly reduce the direct load on the Nation's health care system.

In 1990, motor vehicle crashes were the fifth leading cause of death overall and the fourth most frequent cause of premature death in the United States, behind cardiovascular disease, malignancies, and pulmonary disease. Highway crashes are the leading cause of death for Americans between the ages of 5 and 34. The cost of motor vehicle crash injuries in 1990 was estimated to be \$137 billion. Over \$14 billion of this went for health care expenditures, \$4 billion of which represent costs for Medicare and Medicaid paid by tax dollars.

Thus, I am working to reinvigorate the Department's safety role, not just because of the human tragedy when we fail, but also to avoid preventable costs to the Nation's health care system. In this vein, I recently set tough new goals for increasing safety belt use and reducing drunk driving. Achieving both of these goals could reduce health care costs by \$1 billion per year.

Cross-Modal Safety Management

The Department is organized by statute and by delegation to fulfill its safety mandate through the Operating Administrations. Their staffs possess the fundamental expertise to address the safety challenges of each mode using their knowledge of its clientele characteristics, its regulatory authority, and its technology. Overall, this approach works, and our operating administrations do a superb job of carrying out their individual safety missions.

But there are many safety issues common to multiple modes that can benefit from standardized approaches. We want to capitalize on the many opportunities for cross-fertilization and collaborative approaches to safety problems.

The recent Los Angeles earthquake provides an excellent example. My Chief of Staff, the heads of the Federal Highway Administration (FHWA) and the Federal Aviation Administration (FAA), other modal representatives, and I arrived in Los Angeles less than 12

hours after the earthquake struck, to offer immediate assistance to State and local officials. We were joined the next day by the head of the Federal Transit Administration (FTA). With all the affected transportation modes represented, we could move quickly on the many safety problems and provide any authority or reasonably justified waiver needed to California officials to resume normal operations, or to develop alternative transportation opportunities.

We were able to establish a Federal/State/local transportation task force, which could begin immediately to develop a comprehensive action plan, including overseeing the removal of highway debris and seeking innovative solutions for dealing with the coming commuter problems, such as creating HOV lanes, setting up ridesharing, and expanding commuter rail service.

Mr. Chairman, that task force managed some unprecedented accomplishments, of which I am sure you are aware, and I won't repeat them here. But I would like to focus not only on the actions taken to restore mobility, but on those taken to assure safety. FHWA engineers were available to assist the California Department of Transportation (Caltrans) in determining the safety of bridges which had undergone severe stress due to the forces of the earthquake and its aftershocks. Restoration of rail freight and passenger service after the initial quake was rapid and complete, and operations have continued safely thereafter. The major railroads operating in southern California are tied directly to Cal Tech to receive seismic data, so operations can be promptly interrupted and inspections can be conducted immediately after significant events having rail damage potential.

Our aggressive support for the expansion of Metrolink commuter rail service could not have been realized had not the Federal Railroad Administration (FRA) worked quickly and smoothly with Metrolink, Amtrak, and the Southern Pacific to provide the necessary safety oversight. Working with Transport Canada, FRA also expedited safety approval for use of available Canadian cars to augment the Metrolink fleet. FTA, from its familiarity with Metrolink, was able to facilitate financial assistance and oversee the safety checks on other elements of Los Angeles' extensive transit routes. The Research and Special Programs Administration (RSPA) helped the local municipalities deal with their ruptured gas pipelines, and worked with the oil pipeline operators and the Fire Marshal's office to establish the criteria that determined when oil pipelines could be safely turned on again. I cannot praise enough, Mr. Chairman, the outstanding response and the achievements of the cross-modal Federal/State/local team.

However, we do not wait for an emergency like the Los Angeles earthquake to bring our modal safety experts together. In reviewing our safety responsibilities, we often identify areas

where oversight by a single agency may be insufficient. One of the most difficult continuing challenges facing us is the highway-rail grade crossing problem. In 1992, 579 people lost their lives in highway-rail crashes, and nearly 2000 were injured. Train-vehicle collisions at such crossings are the leading cause of fatalities in the entire rail industry, far surpassing the total fatalities on rail rights-of-way for rail passengers, employees, and contractors. This is especially disturbing, because these collisions frequently result directly from careless behavior, usually by motorists, and from other factors that one would believe are eminently preventable.

To get new insights into this problem, I have organized an interagency task force to develop an action plan to aggressively seek ways to reduce crashes at highway-rail crossings. FHWA and FRA have the primary roles, but they will also work with the National Highway Traffic Safety Administration (NHTSA) and FTA. The action plan will develop strategies for engineering improvements, public education and awareness, law enforcement, regulation, research and development, and examination of the responsibilities of owners of private highway-rail crossings. In order to ensure this plan will be effective, we envision closer working relationships with educational groups like Operation Lifesaver, as well as Amtrak and the other railroads, highway users, law enforcement agencies, State and local governments, and the public at large, to end these highway-rail grade crossing deaths.

I have challenged this task force to go well beyond traditional thinking and use creative, dynamic and interdisciplinary approaches. I expect to receive the plan from the task force by early March, in order to present to Congress and the public our vision for solving this critical safety problem.

This effort parallels our bridge and barge safety review, stemming from the derailment of Amtrak's Sunset Limited near Mobile, Alabama, which resulted from a barge striking a bridge, and knocking the tracks out of alignment. That accident was a terrible tragedy. But it was the result of an extremely unusual confluence of circumstances and outcomes. I went to the accident site to make my own evaluation and, as a result, charged the Commandant of the Coast Guard and the Federal Railroad Administrator to review the circumstances that led to this accident, and to undertake initiatives to minimize the risk of any similar tragedy in the future. On December 10, 1993, I forwarded to the Congress a comprehensive set of remedial actions that the Department is undertaking as a result of that review.

Numerous other initiatives similarly illustrate the Department's cross-modal team approach to improving transportation safety. FHWA and NHTSA have a number of collaborative safety efforts, such as their strategic safety goals for the year 2000. FTA took

advantage of FRA's rail expertise in its recent safety investigation of the New York MTA. The FAA took advantage of NHTSA's considerable experience on the issue of child safety seats. NHTSA took advantage of FAA's expertise when developing specifications for the very technically advanced driving simulator that they are sponsoring and I strongly support.

FHWA and NHTSA, in cooperation with FRA and FTA, are administering the national implementation of the highway Safety Management System, one of six management systems required by the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). It will enhance our capability to manage safety effectiveness through coordinated, multi-disciplinary, cross-modal safety programs at the local, State, and Federal levels.

In a different area, the safe handling of hazardous materials is highly dependent on a collaborative effort. Few people realize that there are more than 500,000 shipments of hazardous materials per day on our transportation system. DOT develops national standards and criteria to protect the public by substantially reducing the risks inherent in the movement of hazardous materials. To support these standards, DOT conducts an extensive compliance and enforcement program. RSPA, which has lead responsibility for hazardous materials transportation, conducts bimonthly meetings with FAA, FRA, FHWA, and the Coast Guard to promote uniformity of enforcement efforts, coordinate rulemaking actions, identify trends, and discuss problems.

Last week we issued final rules implementing the Omnibus Transportation Employee Testing Act of 1991. These rules constitute a major step toward reducing the threat from substance abuse, first, by making over 7.4 million transportation workers in safety-sensitive jobs subject for the first time to testing for the misuse of alcohol, and second, by enhancing our previous rules in the drug testing area. This project was a team effort that took over two years. In the development of these rules, senior representatives from my office played a lead role, working closely with the modal administrations to apply our collective ingenuity to crafting rules that we felt must be even-handedly applicable across the modes.

In this rulemaking, alcohol testing for all modes requires the use of breath-testing devices. NHTSA had developed and evaluated this technology to help local enforcement officials provide an evidentiary base in DWI cases. NHTSA's work thus became applicable to all modes, because the agency had low-cost testing equipment and protocols available, a list of suppliers who make acceptable breath-testing devices, and the case law that employers could point to in defending their procedures, including actions taken against employees impaired by alcohol.

Harnessing New Safety Technology

This brings me, Mr. Chairman, to the importance of technology in the development of higher levels of safety throughout all the modes. Technological innovation not only makes a major contribution to America's economy and global competitiveness, but it is also of fundamental importance to safety performance. Part of this is the role of information, which I will address shortly. Another part is the development of new devices, of both innovative and traditional technologies, to enable us to better perform our safety mission. The examples are legion, including new security devices at airports, new ways to detect structural fatigue on aircraft, automatic devices for restraining wheelchairs in transit vehicles, and new methods of retrofitting bridge structures to make them more earthquake resistant.

Advanced technology is at the heart of our high speed rail initiative, which will focus on improved safety as well as efficiency of passenger transportation. The Intelligent Vehicle-Highway System initiative (IVHS) will improve traffic control systems, warn drivers of dangerous situations, and make more efficient use of the existing highway infrastructure. It will combine state-of-the-art communications, sensing devices, warning systems, electronic displays, and computer technology. This technology promises a substantial reduction in the number and severity of highway crashes early in the next century.

The potential for technological breakthroughs to solve safety problems is enormous, and we would be remiss if we were not making a concerted effort to tap all of the research and technology available to the Federal government. RSPA's Volpe National Transportation Systems Center has done an outstanding job in not only performing such research, but also in making the technology developed for one mode available to other modes. But to better harness technology at the Department, we have also made several structural changes. We have created a new internal coordinating committee to manage technological development. That group consists of the modal administrators and assistant secretaries and is chaired by the Deputy Secretary. We have also hired a new Director of Technology Deployment, to integrate research and development (R&D) programs in the Department into one cohesive package.

In addition, we have sought to take advantage of advanced technology available from the national laboratories, and from defense-related companies attempting to convert their production lines to civilian use. Working through the Defense Department's Advanced Research Projects Agency (ARPA) and the Departments of Energy and Commerce, we are endeavoring to leverage more R&D funds throughout government for transportation-related research. Because of our participation in ARPA's Technology Reinvestment Project (TRP), one of those grants will be for development of

advanced phased array radar to provide simultaneous weather and air traffic information. There are a number of other TRP grants that will be applicable to our safety mission.

Also, the President's Science Advisor asked me last fall to take the lead in establishing an Interagency Coordinating Committee on Transportation Research and Development. This committee will allow us to participate directly in the setting of transportation R&D priorities across the entire Federal enterprise. As we get that work under way, one of our first tasks will be to identify and prioritize technological advances needed in transportation, many of which will address safety problems.

One of the most far-reaching civil applications of new technology involves the Global Positioning System (GPS) developed by DOD, which will have a profoundly positive impact on transportation safety. GPS provides precise real-time position determination virtually anywhere, which could allow, for example, precision approaches to small airports and far safer navigation by ships in restricted waters. It will enable a police officer, or even an automatic notification device on board a vehicle, to radio the precise coordinates of an accident site or a crime incident, permitting prompt and efficient emergency response.

DOT agencies, notably FAA and the Coast Guard, have been in the lead in developing civilian sector applications of GPS to meet safety and navigational needs. The Department has recently concluded a joint study with DOD on the requirements for managing GPS in a manner that will best serve both our national security interests and the needs of the civilian sector, particularly transportation. We have agreed on a joint management approach, which is a significant breakthrough. DOT is now preparing to take its own organizational and other steps needed to implement this agreement.

Human Factors But even as we embrace new technology for preventing accidents and improving the survivability should one occur, we must acknowledge the role of human error in accidents. Most crashes result from unfortunate confluences of factors, including questionable design features, mechanical failure, weather or other external conditions. However, in the vast majority of cases, the primary cause of the accident is human error: failure to follow rules and procedures, intoxication or drowsiness, excessive speed and poor judgment. Most of the modal administrations now have programs underway to address the capabilities of human beings and to better adapt transportation vehicles and operations to those capabilities. Much of the progress in reducing automobile fatalities in recent years has been the result of attention to these human factors--notably our alcoholic driving initiatives.

A particular aspect of "human factors" is operator fatigue. Research is being conducted by FAA on airplane crew fatigue, by FHWA on detecting fatigue of commercial truck drivers, NHTSA on the drowsy driver, and FRA on locomotive engineer stress and fatigue. These programs are being coordinated through an internal working group, on which all modes are represented, with staff support from the Volpe Center.

Currently, we attempt to control the risks due to fatigue in commercial transportation by enforcing statutory or regulatory limits on duty hours and requirements for rest periods. These regulations may change as a result of our research. There is also great interest, however, in devices that can detect the onset of operator fatigue in the vehicle and initiate remedial action before an accident can occur. The FAA, FRA, NHTSA, FHWA and FTA are coordinating their efforts along these lines and sharing their research results.

Improving our Safety Data

Finally, we must have good safety data if we are to allocate resources efficiently and set priorities for rulemaking and enforcement intelligently. The Department has a number of outstanding data bases, but there are still deficiencies. For the most part, we know how many accidents happen, at least at the level involving fatalities or serious injury. But we also need better exposure data (e.g., the number of accidents per mile of travel, or per ton-mile of freight movement). Our newly established Bureau of Transportation Statistics (BTS) is attacking this problem by initiating new surveys to better measure where goods and people are transported, and by what mode. These improved data bases should greatly improve our ability to estimate exposure for safety program planning and evaluation.

Most of the modal administrations now collect the safety data they need to enable them to target their enforcement actions to the greatest risk areas. In the highway area, for example, State and Federal personnel currently transmit safety performance data on motor carriers to the FHWA through the SAFETYNET system. The information includes carrier safety ratings, accident history, and results of roadside vehicle/driver inspections. FHWA plans to provide electronic access to carrier safety data and driver license information to 100 Motor Carrier Safety Assistance Program roadside inspection sites by 1996.

One of the recommendations from Vice President Gore's National Performance Review (NPR) is for the Department to develop common, government-wide measures of transportation safety in order to facilitate communication among agencies and their customers and to permit more informed consumer choice through cross-modal safety comparisons. In response, we have established a working group on government-wide measures of safety, under the direction

of my Assistant Secretary for Transportation Policy. His office houses my safety staff which deals with all safety matters except safety data collection.

The working group has been meeting regularly, and we expect to expand it to include non-DOT agencies shortly. It is addressing the problem of definitions and data elements for safety statistics; the broader question of our overall statistics policy and needs is being taken up by the BTS.

The BTS is beginning to play an active role in the analysis, documentation and improvement of transportation safety data, taking a fresh look at the underlying statistical questions, such as validity and reliability of the data, as well as the policy issues that drive data collection. As specified in the ISTEA, the BTS will compile, analyze, and publish a comprehensive set of transportation statistics, providing summaries, aggregates, and multiyear averages of transportation-related information. To prevent duplication, ISTEA specifically precludes the BTS from requiring any other department or agency to collect data or from reducing the authority of any other office in the Department to collect and disseminate data independently.

I am pleased to say that the BTS will shortly publish its first annual Transportation Statistics Annual Report. It will summarize and analyze available safety data, tabulating accidents, fatalities and injuries by mode, and also reports on other safety statistics, such as near mid-air collisions and terrorist threats against air carriers. Data for the last thirty years, to the extent they were collected, are now accessible in a continuous time series in both hard copy and machine-readable formats.

Your letter of invitation also asked that I address our progress on four other NPR recommendations. I have included information on their status as an attachment to this testimony.

I would like to thank you, Mr. Chairman, and the Committee, for this opportunity to share my views on our cross-modal safety planning and management. I would now be pleased to answer any questions you may have.

**NATIONAL PERFORMANCE REVIEW
ISSUES OF INTEREST TO THE SUBCOMMITTEE**

DOT01: Measure Transportation Safety

NPR recommends the development of common, government-wide measures of transportation safety.

Departmental Response: Under the Direction of the Assistant Secretary for Transportation Policy, the Department has established a working group that has met three times already and is determining whether the data exist in all modes to support an acceptable common measure of transportation safety. The group will expand to include non-DOT members in the next few months.

DOT02: Streamline the Enforcement Process

NPR recommends pilot programs in the U.S. Coast Guard, the Federal Aviation Administration, and the Federal Highway Administration, designed to offer greater flexibility in enforcement methods.

Departmental Response: Under the direction of the Assistant General Counsel for Regulation and Enforcement, FAA, FHWA, and USCG are developing plans for streamlining the enforcement process. We expect an expedited data-gathering process.

**DOT11: Improve Intermodal Transportation Policy
Coordination and Management**

DOT should institute a strategic planning process to promulgate national, integrated transportation policies.

Departmental Response: A Strategic Plan for the U.S. Department of Transportation has been developed and disseminated. It sets forth the challenges the Department faces, the DOT mission, and seven strategic goals.

**DOT12: Develop an Integrated National Transportation Research
and Development Board**

DOT should examine the nation's transportation-related research and development portfolio and develop an integrated national transportation plan that considers specific transportation research needs as well as intermodal transportation plans.

Departmental Response: Preliminary work on this issue has begun at the staff level. The Secretary has hired a Director of Technology Deployment and an Interagency Committee on Transportation R&T has been established.

DOT14: Improve DOT Information Technology Management

The department should develop an information management strategy which will enable the sharing of data among its component agencies and reduce costs.

Departmental Response: Under direction of the Assistant Secretary for Administration, information technology strategies that enable data sharing among the Department's component agencies are being developed.