Assessing Risk in the Modern Age

Remarks prepared for

Deputy Secretary of Transportation Mortimer Downey

for Delivery during the
32nd Transportation Law Institute Program
Panel: Emerging Issues in Transportation Safety Regulation
Fairmont Hotel
San Francisco, California
Monday, November 1 1999
8:45 - 10:15 am

Thank you, Judy (~~Kaleta, Panel Moderator and RSPA Chief Counsel -- she is on special assignment as the Department's Alternate Dispute Resolution Specialist~~), and I'd like to thank the Transportation Law Institute for ~~inviting me~~. After receiving the invitation to this forum, I conducted a risk ~~analysis (albeit a simple one)~~ and determined that, in view of the tolerance of the audience, the knowledge base of ~~other~~ attendees, and the mitigating factors of the San Francisco surroundings, the expected benefit of ~~attending~~ outweighed the cost! (I hope this analysis is correct)

Assessing risk and determining what is reasonably safe in this modern and complex world is, in itself, risky, and it is also an inexact science. Estimating and appropriately managing every risk, cost, and benefit would not be possible, but it is in fact what we do every day – whether it's stepping off a curb or climbing into a 747. What we need to do better as transportation professionals is to assess risk when we know or think it's necessary to provide protection at a reasonable cost to the public.

Safety devices in transportation are everywhere, and most have been very successful – seat belts and highway guardrails come to mind – but others have unanticipated results, causing unexpected injury or higher costs without yielding some of the expected benefits.

Four years ago, for example, the National Highway Traffic Safety Administration (NHTSA) found that while anti-lock brakes, which add about $500 to the sticker price of a typical car, caused a decline in some types of crashes (i.e. those on wet pavement), they increased others.

Drivers of cars equipped with anti-lock brake systems were found more likely to run off the road or sideswipe a tree or post probably because drivers did not handle the brakes as manufacturers thought they should or would. This was not necessarily a failure of technology, but at least a failure of supporting technology with adequate education about how it should be used.

DOT is a complex organization with responsibility for ensuring public safety on our highways, our waterways and in our air space. In working toward eliminating transportation-related deaths, injury and property damage, we must ask ourselves every day: What is "reasonable" risk, and what is the best way to analyze the costs and risks, versus the benefits, of improving safety in transportation using new or conventional technologies?

How Much Risk is Reasonable?

While I believe DOT's efforts have made our transportation system safer, some complain that government has gone overboard on safety and has, perhaps taken away some of our freedom. New Jersey, for example, once banned eggs sunny-side up to guard against food poisoning and still won't allow consumers to pump their own gas for fear of a fire or an explosion. In parts of Ohio, you can't go trick or treating without a permit. One may ask: What is this world coming to!?

Such rules illustrate the principle that government, including the Federal government, should always thoroughly assess whether a regulation is reasonable for the real world, whether it will substantially improve public safety, and whether the benefit is worth the cost.

In addition to good data and analysis ~~methods~~, we need to talk to the public, industry and everyone who would be affected by safety rules before they are implemented. We need to consider their opinions and reactions fully. After all, they are the ones who will have to live with the rules or standards, ~~so they should be consulted and heard~~.

DOT has a ~~tradition~~ of consulting with ~~its~~ customers and stakeholders as a routine ~~of how we do business~~. We ~~have made~~ the extra effort to include stakeholders, including the public, safety advocates, environmental groups, labor and industry in our risk analysis and rulemaking processes.

~~Every week, some~~ incidents or disasters occurs which prompts people to say that government needs to do more to improve public safety -- motor carriers come to mind here. Sometimes it seems that we are damned if we regulate and damned if we don't, depending upon the situation. ~~However~~, a majority of the public seems to be saying it's better if we err on the side of safety.

A Harris poll just out in September found that 69% of the public believe it is time to upgrade motor vehicle safety standards and to improve safety performance of cars and trucks. The survey also found that 93%, (or 9 out of 10 people), believe the federal government should set strong motor vehicle safety standards.

The Advocates for Highway and Auto Safety, which commissioned the independent Harris poll, noted that highway crashes are the number one cause of death of Americans under age 30.– with the implication that those of us over 30 have an obligation to better protect our children.

The whole question of whether it may be too costly to reduce fatalities and injuries seems immoral to some people. Some of you may recall former DG Mary Schiavo's unveiling ~~on~~ our "Secret Memorandum" on C/B analysis. Nevertheless, I think it is worthwhile to hold a forum like this where we can ask the questions: How do we ~~measure~~ do a better job of measuring the costs and benefits to make our regulations effective yet reasonable? And how do we define reasonable?

Perception versus Reality

Sometimes perception rather than reality drives public policy, and we should use our best judgment to ~~know when enough is enough~~ recognize when this happens. The ABC news magazine, 20/20, recently ran a story asking how safe do Americans need to be, pointing out that people no longer have a choice about seat belts and can be fined for not wearing one. The fact that thousands of people die each year simply because they don't buckle up was not part of ABC's ~~reported~~. The seat belt law, we at DOT believe, results in the greatest good for the greatest number of people – both in terms of lives saved and societal costs averted.

Using seat belts is a winner for everyone, and I am pleased that California citizens have heeded the Buckle Up message. California has the highest ~~best~~ belt use rate in the nation. And, today I am pleased to announce that California ~~will receive~~ is receiving a $15 million incentive grant to ~~recognizing~~ reward ~~your~~ their high seat belt usage of 88.6% and the consequent medical cost savings to the Federal government. This TEA-21 provision, by the way, was drafted by Senator John Chafee, and it brings home how much we will miss his wise leadership.

On the other hand, perception can also drive public demand for speculative actions to guard against relatively low-risk hazards, such as nuclear power plants, while ~~everyday~~ commonplace events like alcohol and drug-related deaths don't seem to get as strong a reaction.

Of course, the issue of air bags and the problems they have caused for children and small-statured adults were also featured in the ABC report. ~~The story probed~~ ABC's reporter asked: "Now that we know about the danger, can people buy a car without an air bag or can a mechanic disconnect an air bag at a motorist's request? Or can people order an on/off switch?"

These are legitimate questions that warrant consideration, but after an in-depth analysis, NHTSA determined that installing an on/off switch for air bags or allowing ~~all~~ people to disconnect them at will would inevitably lead to an increase in fatalities and injuries. For now, only people who can demonstrate that they are at risk can disconnect their airbags, because air bags have been so successful in reducing fatalities and injuries. So far, NHTSA reports that air bags have saved ~~over 4,758~~ nearly 4800 lives, enough to make a significant contribution to our goal of absolute reduction in roadway deaths.

lifesaving

Unfortunately, ABC News did not cite these statistics in its report. They show that, for the general population, air bags have saved many more lives and prevented far more injuries than they have caused. ~~Still,~~ we have been working with manufacturers to lessen the risks to children and small-statured adults. Parents have been advised to have children ride in the back seat, away from the air bag. ~~Many~~ lessons have been learned from our airbag experience, over the past ~~decade~~ and, beginning in 1998, redesigned airbags on new cars are ~~20%~~ less forceful than older airbags. NHTSA worked with the auto industry to test the new airbags, which ~~pose~~ much less risk of death or serious injury, according to an agency report released last Tuesday.

When a new technology to enhance safety voluntarily introduced by industry ~~enters the marketplace~~, whose responsibility is it to assess the benefits versus the risks? The answer is: both government's and industry's. Safety should definitely be considered in the design phase, and we must work together to test products in real-world conditions.

Given the number of new technologies and the speed with which they are introduced into the marketplace, however, government ~~cannot~~ is not going to be able to check them ~~all~~ all of for safety and risk. We must, with a limited budget, prioritize our testing programs. Therefore, it ~~is up~~ should be the responsibility of to industry to do most of the testing and to make sure its products are ~~safe~~ both effective and safe before they are offered to the public.

As for side air bags, DOT is working with vehicle manufacturers to ensure that ~~side air bags~~ they are fully tested and do not pose a safety risk to the motoring public. NHTSA began a Special Crash Investigation effort several years ago when side air bags were first introduced in the U.S. market, and so far the results have been good. Side air bags are reducing injury, particularly head injury, but we will continue our testing and our work with industry to assure that they have no unanticipated consequences.

Dr. Ricardo Martinez, who was Administrator of NHTSA since 1993 and left DOT just last ~~week~~ month has said, and I agree:

> **We believe researchers, engineers and designers must have one foot in the laboratory and one foot firmly planted in the real world crash environment.**

The How of DOT Risk Assessments

Last May, I was invited to participate in a conference on *Understanding, Managing and Presenting Risk in Public Policy.* (Personal comments on the conference)

In preparation for the conference, staff from our modal administrations wrote up examples of recent risk assessments and outcomes. All of our modes are involved in risk assessment, and we had some interesting examples.

As a result of accidents last year, the National Transportation Safety Board recommended that our Research and Special Programs Administration (RSPA) conduct an assessment of whether or not to prohibit the transport of hazardous materials in unprotected external pipes of cargo tank motor vehicles (such as gasoline trucks) that may be vulnerable to rupture in an accident. In doing the assessment, RSPA considered the risks inherent in the current system, the level of technology development, possible ways to eliminate or reduce risk, and benefits and costs of various approaches.

After reviewing the data – including the estimated number of injuries per year (0.52 per year), expected value of property damage ($800,000) and other factors – RSPA analysts still concluded that some corrective action should be considered and included new requirements for cargo tank vehicles in an already-planned rulemaking. As in many cases of risk assessment, the results of corrective action fell within a gray area, and the benefit/cost ratio was not simple to determine, but the countermeasures were simple enough to mandate at relatively low cost in order to avoid future disastrous crashes.

~~Overall, the assessment found that hazardous materials transportation safety is sufficient and protects the public.~~ RSPA also found that, because of litigation risks, industry was moving on its own to adopt systems and equipment to reduce or eliminate hazards. So, it's not always up to government to force a particular outcome.

In August, RSPA issued another new rule requiring natural gas and hazardous liquids pipeline operators, including both interstate pipelines and local distribution companies, to have written operator safety qualification programs in place by April 2001.

The new rule, which replaces a less cohesive group of standards, took effect last month and requires companies to demonstrate through on-site reviews and inspections by RSPA's Office of Pipeline Safety that workers can actually perform certain tasks critical to pipeline safety performance.

Developed through a negotiated rulemaking process with industry, labor and public safety groups and three years in the making, the rule covers about 175,000 pipeline employees. RSPA estimated the cost to industry of compliance at about $438 million.

RSPA is also assessing whether or not to develop new safety requirements for natural gas pipelines where failures could have the greatest consequences to the public and the environment, particularly in large cities or environmentally sensitive areas. Part of DOT's risk assessment process includes public outreach, and RSPA will hold a public meeting on pipeline safety later this month to listen to all stakeholders.

The Coast Guard, which is responsible for protecting and safeguarding America's ports and waterways, conducted a risk assessment to investigate oil spills from maritime sources in Puget Sound, the Strait of Juan de Fuca, and adjacent offshore waters. The assessment used both statistical estimates and expert information to identify and rank the risks in the area. An expert panel was formed, including marine pilots, shipping operators, navigation/traffic managers, risk experts, marine environmentalists, fishermen, and others.

The results indicate that the three highest risks were associated with ship collisions, vessels losing power and drifting aground, and vessels running aground while under power. These results were used to formulate a multi-faceted approach to reduce risks, to include conducting a cost/benefit analysis and forming a public working group to develop a long-term risk management plan for the area. Part of that process is intended to localize the discussions of how much cost is warranted to protect a particularly sensitive area and how best to achieve that result, especially in light of differing perception of what risk among equally involved stakeholders.

Conclusion

Assessing risk is both a complex and a never-ending job. In this technological age, it is becoming especially challenging as new products and technologies change ~~our~~ the transportation ~~landscape~~ environment. At the same time, perceptions about risk also change, as the media and the public witness crashes or safety failures and begin to ask questions.

There is no way we can think of everything that could happen in every situation and no way that we can test the probability of every outcome. Under normal circumstances, we, perhaps, tend toward complacency, thinking we are doing all that can be reasonably expected. Then a major accident, a growing number of lesser accidents or even a deliberate event, such as a terrorist attack, makes us aware of a new risk or suggests the possibility that harmful outcomes are more probable than we had thought. Public concern and political pressure are aroused.

Over the longer term, new technology is developed to offer improved protection against such risks at lower cost. Sometimes that technology can drive us in the other direction, demanding action to allay our own and the public's newly-awakened anxiety toward taking advantage of the fruits of invention even before all consequences are assessed.

We need to perform risk assessment when we intuitively believe safety is at risk and use it to demonstrate quantitatively that the expected benefit to public safety outweighs the costs, including costs that might be imposed by undesirable consequences of the new technology.

Risk assessment can be useful in convincing those who must bear the costs of new protective measures or, alternatively, of reconciling those who would press for unjustifiably costly action. At the same time, we must guard against complacently accepting as adequate all of those regulations and procedures that are now in effect, ~~that~~ recognizing that they are not regularly subjected to the same scrutiny as new proposals. The FAA assumption, for example, that steps to eliminate ignition risks was an adequate defense against fuel tank explosion is proving in practice to be an unbalanced strategy when measured against the facts.

Realistically, neither the decisions we make in risk management nor the underlying science are without subjectivity -- or risk! Sometimes our decisions involve ethical principles. Sometimes they rely on assumptions about the nature and validity of the information analyzed.

In approaching safety issues and risk assessment, DOT has had excellent results when it has included all stakeholders in the process. Doing so is the key — it is vital to developing the assessment methods and building understanding and support for the ultimate decisions.

Thank you, and I look forward to the discussion to follow on the subject of risk or any other matters involving the Department's activities.

Monday, November 1 1999
8:45 - 10:15 am

32nd Transportation Law Institute Program
Panel: Emerging Issues in Transportation Safety Regulation

Fairmont Hotel
San Francisco, California

Briefing Paper

Event Contact: Dale Jones, Executive Director, Association for Transportation Law, Logistics and Policy or Judy Kaleta, panel moderator and RSPA Chief Counsel, U.S. DOT, and American Bar Association Vice Chair, Transportation Committee, at 493-0992.

MEDIA: Yes, some trade press may attend.

YOUR ROLE: 15 minutes of remarks followed by 20 minutes of dialogue between panelists and the audience. Judy Kaleta will introduce you.

This panel will focus on risk assessment in safety rulemaking, international harmonization of standards, and the federal role in motor carrier safety.

You will offer a "big picture" and thoughtful talk about safety and risk in transportation, including the difference between critical safety problems and those that are perceived as critical. In other words, sometimes perception does not match reality but has an effect on public policy.

Other panelists: Phil Recht, Mayer, Brown & Platt, Los Angeles, will cover harmonization issues.

(No one will replace Richard Landis, HELP, Inc.,who could not attend, but Judy Kaleta will cover the latest on motor carriers.)

EVENT: A 2.5-day symposium that focuses on the most topical aspects of the law, practice and procedure as they affect the transportation industry.

AUDIENCE: About 100, including transportation industry professionals, federal, state and local government transportation officials, and private attorneys with transportation-focused practices.

AUDIENCE ISSUES: Has risk assessment helped when data is imperfect? What is the status of data in doing risk assessment?

The role of NTSB, which does not do in-depth, cost/benefit analysis.

The latest on motor carrier safety regulation and the Department's position.

SETUP: Large meeting room with a table and podium in front with the audience seated theatre style.

Achieving A Safer, More Efficient Aviation System

Remarks prepared for

Deputy Secretary of Transportation Mortimer Downey

for Delivery to the

Global Summit on International Aviation Infrastructure
Air Traffic Control Breakfast Session
Renaissance Ballroom, Ballroom Level
Renaissance Hotel
Washington, DC
Tuesday, November 2 1999
2 to 3:30 pm

Thank you, Dr. Fearnsides and thank you for inviting me to participate in this panel on air traffic control and on "avoiding aviation gridlock," three important words that are repeated several times in the literature describing this Summit -- and certainly are repeated often in discussions in my office. I would note that it's not just gridlock in the skies that we need to avoid -- it's also important that we break the policy gridlock in board rooms and legislative chambers that leads to the physical congestion of our system.

Aviation -- Past, Present and . . . Future?

But before we talk about gridlock, let's think about how much has changed since 1927 when Charles Lindbergh arrived in Paris after flying the 3,600-mile stretch of open sky from New York – nonstop and alone. Lindbergh's flight took 33 hours. Today, that flight takes seven hours. From 33 hours to seven—Aviation has brought us the gift of time.

That gift of time, that efficiency, is one reason that aviation has grown so rapidly. We are a nation – indeed a world -- of people who want to go places and do it in a hurry. More than 600 million passengers will fly in the U.S. alone this year and, as early as 2010, U.S. airlines could be carrying almost a billion passengers a year. The factors that drive growth are not unique to this country. Globally aviation is also growing and 1.5 billion passengers worldwide will fly this year. Worldwide air cargo is expected to more than double in 20 years, supporting an economy that's integrated worldwide and driven by the principle that time equals money.

Many of you, like me, have our stories to tell about travel delays. It seems as if the "gift of time" is disappearing. Responding to this real concern, FAA took a hard look at the causes of delays and identified immediate steps to take. An important one was to shift some authority from regional control facilities to the nationwide command center in Herndon, Virginia, where air traffic managers have a comprehensive view of weather and traffic conditions everywhere in the U.S. It's an impressive facility -- in fact, it's where I intend to be at the time of the Y2K rollover -- making sure Jane Garvey gets to her destination safely.

And that safety imperative is not just a once-in-a-century matter. As we avoid gridlock and delay in aviation, we always need to keep our eye on the #1 priority – SAFETY. No matter what the institutional arrangements to build, maintain or operate aviation infrastructure here or in any other country, safety assurance is the key to public acceptance and the growth of aviation.

And while I think we all agree that an appropriate degree of government oversight and regulation is needed to ensure that safety, the private sector also has a very important role to play. Business has a stake in how well the system works. After all, companies rely on air travel to foster business relationships, make deals and get their products and services to markets and customers. And those businesses who are our partners in providing the air traffic control systems and facilities have an obvious interest in making sure the system is a success.

Cooperation and Harmonization

The world continues to become more integrated. In the past, we were divided by geography and a wall that separated East and West. Today, the driving forces are those of unity -- international trade, increased mobility, and new technologies, especially the Internet and information technologies. And while these technologies give us the ability to talk to each other at great distances, there's still no substitute for the person-to-person contact that air travel makes possible.

Without a concerted effort on all our parts, the gridlock could get worse. Delays cost people and business time and money. The FAA estimates that delays cost the U.S. airline industry alone at least $2.5 billion per year in higher operating expenses.

We have too many routes today where planes designed to fly 600 miles per hour are no more efficient in getting passengers and cargo from origin to destination than a plane flying 250 miles per hour. It almost seems that we are back in the era of the DC-6!

Forging Ahead with ATC Modernization

One effort we have successfully mounted to avoid a land of gridlock is FAA's response to the Y2K problem. At 59 days out, I think we can promise a smooth transition — but we need to put similar energy behind long term modernization.

In the past several years, we have worked hard to make our Federal Aviation Administration (FAA) a more Performance-Based Organization -- creating the mechanisms and incentives to operate a more business-like air traffic control system while retaining the degree of safety we all agree is necessary. With support from Congress, we should incorporate innovative funding mechanisms that will link aviation user fee funding to spending. And we need to increase FAA and airport flexibility to fund vital infrastructure projects.

To enhance safety and efficiency, we need to press ahead with FAA's modernization program. Every day, we are reinforcing the round-the-clock reliability and integrity of our air traffic control system by installing modern equipment. Technology to provide more precise, more accurate, more complete weather information will enhance safety. And, we are implementing programs and procedures to improve the capacity and flexibility of our ATC system.

Our approach to ATC modernization can be summed up in a word: evolution. Instead of taking a "big bang" approach to modernization, (probably an inapt metaphor for aviation safety in any case) we are moving incrementally, reducing the potential for cost overruns and schedule delays, building on the successes and lessons we learn at every step, and leaving open-ended opportunities to enhance systems as technology rapidly improves.

We have structured our approach to National Air Space (NAS) modernization with a particular emphasis on air traffic control, the cornerstone of the NAS. Three elements define the approach:

- First, sustaining our current systems while renewing the infrastructure;
- Second, adding safety features; and
- Third, improving the system to increase capacity and efficiency.

We are modernizing the system based on a roadmap that was developed in collaboration with industry and all stakeholders: The NAS Modernization Plan now designated as Version 4.0, reflecting the intensive rounds of consultation. While we still have a long ways to go, the progress is real.

We have installed and integrated more than 700 major system and equipment components into the NAS, and provided more than 5,800 hardware and software upgrades. These efforts produce immediate paybacks to the FAA -- and importantly to the ultimate beneficiaries - the airlines and the traveling public. For instance, last year, the FAA made a $60 million investment in system upgrades at Ronald Reagan Washington National Airport. As a result, we saw a 30 percent reduction in the outages that mess up travel for all of us. As we continue to invest in modernization, we should reap increases in safety and decreases in costs.

The element we call the HOST computer is the heart of the air traffic control system; it gathers all the flight data in domestic and oceanic airspace, processes it, and distributes that information to other facilities. As you can imagine, replacing a system like this is an incredibly complex process, calling for careful orchestration.

The FAA not only finished installing the new HOST system at all locations, but completed it on time and on budget. We anticipate an estimated savings of $15.6 million in reduced electrical power consumption over a 10-year period and a 65% reduction in maintenance costs as a result of the new system. And we reduced our Y2K uncertainties in the process.

Last month, we dedicated a new Display System Replacement (DSR) at the New York Air Route Traffic Control Center, replacing decades- old display screens, controller workstations and computers to process radar data. By May of 2000, we expect to have replaced these systems at all 20 centers in a program that has gone remarkably smoothly as compared with some earlier efforts. Success in these efforts is not just a matter of providing the equipment – it comes when the workforce can adapt the equipment to sustain and improve their performance.

One of our most important ongoing efforts is the work of the Human Factors Working Group, growing out of our development efforts in STARS - the system for control of terminal airspace. The group, including representatives from the FAA, labor union leadership, and industry, is working to identify, monitor, and resolve human factors issues throughout the entire acquisition process. Each of these parties -- and especially the users -- have to be satisfied with the outcome if the effort is to be effective.

Increasing the capacity and efficiency of the system, means fewer delays, lower costs, and better service -- especially for airlines and their customers. An important approach we are taking to achieve these benefits is known as Free Flight Phase One. Free Flight Phase One is designed to begin moving away from a centralized command-and-control between pilots and air traffic controllers to a distributed system that allows pilots, wherever practical, to file a flight plan that follows the most efficient and economical route to their

destination. The system is designed to confirm that this can be done safely.

Free Flight Phase One represents an historic point in the FAA's history. Under it, we have reached a consensus with industry that is virtually unprecedented: all the sectors of the aviation community are in agreement.

The nature of this agreement is simple: we deploy the systems and the community measures the results, telling us how it is working. After receiving this valuable feedback, we then decide on next steps. Maintaining this consensus will be an enormous challenge for the FAA, particularly when the guiding principle is to out-do your competition in all things.

Free Flight Phase One is perhaps our best example of the benefits of the FAA's "evolution, not revolution" approach to modernization. Under this building block approach, we not only reduce the risks of cost overruns and schedule delays, but we take into account the changing nature of emerging technologies.

The FAA's overall NAS modernization plan is a forward-looking approach that is scheduled to take place over the next 15 years. With this incremental, evolutionary approach, not only are we able to accommodate changes in technology, we can anticipate their direction and incorporate them as they develop.

As we draw closer to 2015, we will learn more lessons and experience more successes, in order that we may ultimately make better decisions.

Modernization of our Aviation Infrastructure

The timely, successful completion of our modernization program is critical if we are to cope with increasing demands and ever-more crowded airspace. Yet, we all know that improving the air traffic control system is only one side of the modernization coin.

The other side -- airport infrastructure -- is equally important. We must invest in our airport infrastructure to meet growing demand. Our busiest airports are already straining at the seams. We need new and expanded runways, taxiways, and aprons, as well as additional gate and terminal capacity.

Our Congress is working on legislation to fund all the programs of our FAA -- airports and air traffic as well as the safety and research activities that will make them work well. Included in the Congressional deliberations is the subject of reforming the FAA and the air traffic control system. We hope that this multi-year funding measure will be approved this year so that we can ensure both the safety and efficiency of America's aviation system today and in the 21st century.

All nations that intend to be competitive into the 21st century want to improve their aviation systems, but most need support in terms of technical expertise and capital to get there. Building or modernizing air traffic control systems and infrastructure requires substantial amounts of capital.

Government investment alone will not meet all the needs for a global aviation system for the 21st century. The private sector must also invest in aviation infrastructure. This is a positive for business as well as for government because such investment is a proven catalyst for economic development.

One way we can finance air traffic and aviation infrastructure is through user fees. Aviation produces a generally reliable and growing revenue stream that can be tapped for reinvestment in building and modernizing air traffic systems that support its growth and assure its safety.

We are living in a complex world, which often calls for creative steps to accomplish big objectives. Here in the United States, and throughout the developing world, we are seeing more and more instances of innovative project finance and private-sector investment in airport construction and airway development.

To ease the gridlock and encourage economic growth overseas, privatization of airway services and airports is occurring at rapid rates in a number of regions. For example, some 70 airports in Latin America alone are scheduled to be privatized. But even as privatization helps to attract capital and to improve the pace of modernization, there is a need for government oversight and regulation to ensure public safety and consumer protection.

The finger-pointing and public debate in the wake of the recent rail accident in Britain illustrates how privatization of transportation needs to be accompanied by appropriately developed and enforced safety standards. Without them, more disasters are unfortunately likely to occur.

Conclusion

Improving and modernizing our global aviation system is, we all know, not a simple or easy task. Technology presents us with extraordinary possibilities and our dedicated and skilled workforces provide the ability to accomplish much. But this is a new era, and we have to face the realities of a new era if we are to be successful in ensuring that aviation fulfills its potential and contributes to continued economic growth for the world.

I am confident that if we by work together, share our knowledge, and keep commitment to high standards, we can make significant improvements in our global aviation infrastructure.

If we invest and plan wisely, our aviation systems have the power to stimulate world trade and build stronger economies in every region. Efficient and safe aviation can be a benefit to all of the world's people.

With the right organizations and the best technologies, we can make real progress towards safer skies, towards efficiency for the traveling public and move to the day when all nations are full participants in the global economy.

Thank you, and I look forward to the discussion to follow.

Remarks for the
Retirement Celebration of
Frank L. Calhoun, Legislative Director and Counsel
Federal Highway Administration, U.S. Department of Transportation

Thank you, Ed (Kussy). I'm sure glad we could all be here to celebrate Frank's many years of excellent service to the Department of Transportation -- despite the wild weather outside! In his honor, we've asked NOAA to redesignate this storm as Hurricane Frank, as we all know, is the best at what he does

Frank ~~is passionate about his work~~ and has contributed so much to our nation's surface transportation through his work as chief drafter and steward of ~~the~~ not only the largest legislative programs ~~not only~~ in DOT, but probably in the entire federal government. We could never pay him enough for the tremendous effort, the creative insight and the hours he has contributed. — even if we took up a collection among all the people and interests he has helped.

For more than 30 years, Frank has worked on every major piece of highway legislation submitted to Congress by the Federal Highway Administration and its predecessor agency, the Bureau of Public Roads. He has worked on the National Traffic and Motor Vehicle Safety Act of 1966, ~~several of~~ the many Federal-Aid Highway Acts, the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and most recently the Transportation Equity Act for the 21st Century.

I don't know of anyone in the Federal Highway Administration or the Department that can match the significance of Frank's service record.

Frank, you have given the Department and the American people much of yourself these past 3-plus decades. And, much as we hate to see you go, we wish you good health and happiness in retirement.

I'm sure you'll keep busy with your other passion -- horses. And, I'm sure you will enjoy having more time to spend on this equestrian hobby in beautiful Lexington.

I've had the pleasure of working with Frank on a number of these bills — ~~on~~ in various capacities — and I can assure you that it's always better to hear from all sides.

(~~Could add something personal about your experience working with Frank C. on legislative or regulatory matters~~)

Without Frank, we ~~probably would not have been~~ able to draft and implement these important Acts as smoothly as we did. ~~He~~ worked closely with Members of Congress, their staffs, and committee staff in drafting and enacting legislation ~~that was~~ vital to our nation's transportation system, there's seldom a debate about legislative intent ~~or~~ or meaning — of course... there always are those provisions that came from ~~some~~ someone else ... but what are "technical corrections acts" for, provide help + guidance to Congress

Frank's experience reached beyond surface transportation to most of the other modes, ~~including the~~ Federal Transit Administration, the Federal Railroad Administration, the Research and Special Projects Administration, the U.S. Coast Guard and the National Highway Traffic Safety Administration. have all benefitted from Frank's abilities.

In addition to legislative work, Frank participated in analyzing reports to Congress and working with the General Accounting Office (GAO) on audits.

These are just a few of the many valuable contributions that Frank has made ~~and that~~ ensuring our country continues to have a safe and efficient national highway system.

Remarks Prepared for

Deputy Secretary of Transportation Mortimer Downey

for Delivery during the

1999 Coast Guard Ball
Crystal Gateway Marriott
Alexandria, VA
November 6, 1999

Thank you, Admiral Loy, other distinguished guests, members of the Coast Guard family, ladies and gentlemen.

I appreciate the opportunity to be here with you tonight. Secretary Slater also asked me to bring you his warmest regards.

And, my congratulations to Admiral George Naccarra, the Washington Coast Guard Officers Association and all of the dedicated folks who have worked with George to make this evening a success.

With that kind of leadership and commitment– I can understand why Y2K is so well in hand. Compared to setting up an event like this, worldwide maritime readiness is a piece of cake. Let's show our appreciation to George and his crew of volunteers.

Tonight's proceedings have been truly moving, especially Captain Boyle's description of the symbolism behind the empty place at the table and the special speakers, each a member of the Coast Guard's extended family, reflecting on what the Coast Guard means to them.

Let me just add a few thoughts of my own.

I've had the opportunity to see the Coast Guard from many perspectives -- as an American citizen, as a Department official, and as a one-time Coast Guard Officer and, I hope, as a continuing member of the Coast Guard family.

As an American citizen, I see the Coast Guard as a traveling companion and protector – both literally and figuratively.

When you walk into a dark room, you automatically reach for a switch and expect that the lights will come on. In that same sense, the American people see the Coast Guard as a quiet but ever-present protector and potential lifesaver. Recent tragic events only bring this role into sharper focus. Americans have come, more than ever, to rely on the Coast Guard to be "Always Ready, Always There."

Admiral Larrabee has almost become a regular on CNN – not an enviable role considering the circumstances, but certainly an important one as he demonstrates to the nation how the Coast Guard does its duty - as dangerous and sometimes sad as it is.

From the perspective of the American people, you serve the nation in critical ways every day, although perhaps less visibly. On an average day, you save 12 lives, help 308 people in distress, and save over $8 million in property -- ***whether or not CNN is watching***.

Last year was another record year for Coast Guard drug interdiction -- 56 metric tons of cocaine seized -- the equivalent to 506 million individual deadly doses kept off our streets and out of our school yards. Certainly the American people appreciate that life-saving effort.

While the message of the empty place and the discussion of the battle streamers – like the Veteran's Day holiday we are about to observe – are meant to reflect the heroism of those who have served and sacrificed in defense of our freedom, the Coast Guard can look beyond its role in military conflict and reflect on extraordinary deeds done every day. Look around the room - we all know people here who have – again and again – placed their lives in danger to save others.

As Deputy Secretary, I have the special opportunity to view the Coast Guard's operations from behind the scenes, especially as you continue to play an important national security role. For the last five years, cutters have deployed to the European and Central Commands in support of the Navy operations in those theaters.

Most recently, the Bear's deployment to the Adriatic for the Kosovo effort brought new honors. The Commander of the Sixth Fleet, Vice Admiral Murphy, told me personally how well and how seamlessly Bear folded into the naval operations. The cutter and crew assisted in efforts to maintain sea control while permitting unencumbered commercial shipping. We think it was an honor that BEAR was the only combat vessel permitted to operate inside the range of Serbian missiles.

From the nation's perspective, a multi-mission, maritime, and military Coast Guard is exactly the right combination – and as such you bring tremendous value and honor to the Department.

The Secretary and I particularly value the role the Coast Guard plays as a leader among the modes. It's in your nature and culture to take the lead, and you certainly have as we achieve Secretary Slater's vision for "**A visionary and vigilant Department Of Transportation leading the nation to transportation excellence in the 21st century**."

The other day, Morley Winograd, the Vice President's National Performance Review (NPR) director, shared with the President's Management Council an article in this month's *Government Executive* Magazine. It singled out the Coast Guard – the only public agency used as an example – for its superb Annual Report. Let me read a quote.

"The Coast Guard has written a very competent report...the overwhelming impression you get from the report is here is a highly dynamic, creative organization that's very good at what it does. It's also honest enough to admit there are some areas of limitation or which need improvement."

That's high praise for an organization that deserves it.

But there's more to it than just publishing an annual report.

The Commandant has been a singular force for open, honest discussion at the modal administrator level as we built the DOT Strategic Plan and Performance Plans. Many of you invested countless hours in ONE DOT and flagship initiatives, all of which have placed the Department well ahead of our peers in Government.

Enthusiastic Coast Guard men and women across the country are taking the lead in regional partnerships with government, industry and private organizations to make the Maritime Transportation System work more safely and efficiently. And you have taken the lead in our relations with schools across the country in support of the Garrett Morgan initiative. All of these are forces for positive change, driving the entire Department forward.

You probably know that I spent 12 years in a Coast Guard uniform, active and reserve, beginning in 1959 -- long before, there was a DOT. As a former Coastie, there are a few things I wanted to share with you.

First, I believe that readiness is paramount – and it's an important concern that I hope we have advanced on in our work on the Roles and Missions study -- an effort that focused on the value-added role you play for many critical national interests.

The critical element of a successful Coast Guard – and the key to readiness – is people. All of the services are facing recruiting problems, and retention is as much a factor of the good economy as it is people's motivation to stay in. Some people think we have to get the job done first, and then take care of our people when we get to it. They couldn't be more wrong.

An important lesson that all of us learn from Coast Guard service is that Job One is to take care of people, meet their needs, and respect their core values. We need to offer the well-deserved compliment when somebody does an excellent job.

A little recognition always goes a long way.

Admiral Loy has said that people are the Coast Guard's most valuable asset, and I can tell you that he is very proud of the men and women who serve. We all share in his pride when he tells the Secretary about the incredible things you do.

Secretary Slater, Admiral Loy and all of the Coast Guard leadership and I will continue to work hard to make sure you have both a fulfilling and challenging Coast Guard career. We're glad to have the opportunity this evening to say "thank you" for all that you do.

Now, let's enjoy the company and the evening!

"Semper Paratus"

Captain Francis S. Van Boskerck, USCG, wrote the original words and music in 1927.

The first line of each chorus was changed in 1969.

1st Verse (original, 1927 version)

From Aztec shore to Arctic zone,
To Europe and Far East.
The Flag is carried by our ships,
In times of war and peace.
And never have we struck it yet,
In spite of foe-men's might,
Who cheered our crews and cheered again,
For showing how to fight.

1st chorus (1969 change to 1927 original 1st chorus)

We're always ready for the call,
We place our trust in Thee.
Through surf and storm and howling gale,
High shall our purpose be.
"Semper Paratus" is our guide,
Our fame, our glory too.
To fight to save or fight to die,
Aye! Coast Guard, we are for you!

2nd Verse (original, 1927 version)

SURVEYOR and NARCISSUS,
The EAGLE and DISPATCH,
The HUDSON and the TAMPA
The names are hard to match;
From Barrow's shores to Paraguay,
Great Lakes or ocean's wave,
The Coast Guard fought through storms and winds
To punish or to save.

Repeat 1st chorus

Coast Guard Ball

Washington, D. C.

6 November 1999

Crystal Gateway Marriott
1700 Jefferson Davis Highway
Crystal City
Arlington, Virginia

Dinner

Garden Fresh Salad with a Creamy Peppercorn Dressing

Chicken Breast Mediterranean

Risotto

Bouquetière of Fresh Vegetables

Fresh Rolls with Butter

Carmel Fudge Pecan Cake

Fresh Brewed Coffee

Program of Events

Musical Prelude, six o'clock PM

Entrance of the Official Party

Colors Posted – Armed Forces Color Guard

Invocation

Remembrance Table

Dinner is Served

Intermission

USCG Honor Guard – Precision Drill Demonstration

Toasts

History of USCG Battle Streamers

Evening Reports

Guest Speaker
The Honorable Mortimer L. Downey,
Deputy Secretary of Transportation

Assembled Company sings "Semper Paratus"

Colors Retired

Dancing Begins at half past nine o'clock, PM

Ball Concludes at half past eleven o'clock, PM

Dancing to the music of the
US Navy Band- Commodores

1999 COAST GUARD BALL

PROGRAM SCHEDULE

1800 Preliminary music

1845 Guests are seated

1850 Entrance of official party

1900 Presentation of colors

1905 Invocation/Introduction of VIPs

1915 Remembrance Table

1930 Dinner

2010 Break

2035 Honor Guard performance

2045 Toasting

2055 Battle streamers

2105 Evening reports

2110 Guest speaker

2120 Sing *Semper Paratus*

2130 Dancing

2330 Ball concludes

1999 COAST GUARD BALL

SCRIPT

(all times after 1800 are approximate)

1800 Preliminary music

~~**1845**~~ ~~MC~~RADM Naccara: **"LADIES AND GENTLEMEN, THE COAST GUARD BALL WILL BEGIN IN APPROXIMATELY FIVE MINUTES. PLEASE LOCATE YOUR TABLE AND BE SEATED."**

Mrs. Downey, Mrs. Loy and Mrs. Patton escorted to seats

NOTE: Line-up for entrance of official party
1. MCPOCG
2. G-C
3. GUEST OF HONOR

1850 Entrance of official party

RADM Naccara; **"GOOD EVENING LADIES AND GENTLEMEN, I AM REAR ADMIRAL GEORGE NACCARA, MASTER OF CEREMONIES FOR THIS EVENING'S BALL. PLEASE RISE FOR THE ENTRANCE OF THE OFFICIAL PARTY, AND REMAIN STANDING FOR THE PRESENTATION OF COLORS, THE NATIONAL ANTHEM AND THE INVOCATION."**

(Head nod starts VIPs walking.)

~~**"REPRESENTING _____, GEN _____"**~~

~~(___ bells)~~

~~**"REPRESENTING _____, ADM _____"**~~

~~(___ bells)~~

~~"REPRESENTING _____, GEN _____"~~

~~(___ bells)~~

"THE MASTER CHIEF PETTY OFFICER OF THE COAST GUARD, MASTER CHIEF VINCE PATTON."

"THE COMMANDANT OF THE UNITED STATES COAST GUARD, ADMIRAL JAMES M. LOY"
(8 bells)

"OUR GUEST OF HONOR AND KEYNOTE SPEAKER, DEPUTY SECRETARY OF TRANSPORTATION, ~~MR.~~ THE HONORABLE MORTIMER L. DOWNEY"
~~(8 bells)~~

(When MCPOCG, ADM Loy and S-2 have reached their table, proceed with colors)

1900 RADM Naccara: **"COLOR GUARD, PRESENT THE COLORS."**

(Band starts with head nod from MC and plays Army, Marine Corps, Navy, Air Force, and Coast Guard hymns as flags enter. Plays "Four Flams" as national ensign enters and proceeds to position in front of stage)

RADM Naccara: **"LADIES AND GENTLEMEN, PLEASE RISE FOR THE NATIONAL ANTHEM."**
(Band plays national anthem.)

(colors are retired)

1905 RADM Naccara: **"CAPTAIN LEROY GILBERT, CHAPLAIN OF THE COAST GUARD, WILL GIVE THE INVOCATION."**

1999 COAST GUARD BALL

Chaplain gives invocation. (one minute)

RADM Naccara: **"LADIES AND GENTLEMEN, PLEASE BE SEATED.** (Band leaves stage) **I WOULD LIKE TO RECOGNIZE A FEW OTHER DISTINGUISHED GUESTS WHOSE COMPANY WE ARE HONORED TO HAVE TONIGHT. PLEASE STAND AND BE RECOGNIZED AS I CALL YOUR NAME.**

The Honorable Melissa Allen, Assistant Secretary of Transportation for Administration
The Honorable Clyde Hart, Maritime Administrator, and
The Honorable Kenneth Meade, Inspector General of the Department of Transportation

WE ARE VERY HAPPY THAT YOU CAN BE WITH US TONIGHT. TO ~~THESE HONORED GUESTS AND~~ ALL IN ATTENDANCE, WELCOME TO THE COAST GUARD BALL.
THIS EVENING IS AN OPPORTUNITY FOR US TO ENJOY SOCIALIZING WITH FELLOW COAST GUARD MEN AND WOMEN, AND ALSO TO CELEBRATE AND REMEMBER THE PEOPLE, HISTORY AND TRADITIONS ~~THE HSTORY~~ OF OUR SERVICE.

THROUGHOUT THE EVENING YOU WILL HEAR FROM MEMBERS OF THE COAST GUARD

FAMILY WHO WILL DESCRIBE WHAT THE COAST GUARD MEANS TO THEM - YOU WILL ALSO WITNESS THE MILITARY PRECISION OF OUR OWN HONOR GUARD DRILL TEAM, AND YOU WILL HEAR ABOUT SOME OF OUR RICH HISTORY AND TRADITIONS. IT IS ONLY FITTING THAT WE START OFF TONIGHT WITH A REPRESENTATIVE FROM OUR ENLISTED RANKS; PETTY OFFICER JAKE CUOMO.

(PO Cuomo speaks)

RADM Naccara: **"THANK YOU PETTY OFFICER CUOMO.** (pause) **NOW I'D LIKE TO ASK CAPT PAT BOYLE ~~NOW~~ TO EXPLAIN THE SIGNIFICANCE OF THE EMPTY TABLE BEFORE US."**

CAPT Boyle: **"IN FRONT OF US IS A REMEMBRANCE TABLE. THE CHAIR AND TABLE WITH A SINGLE PLACE SETTING REPRESENT MEMBERS OF THE ARMED FORCES WHO HAVE CROSSED THE BAR BEFORE US.**

UPON ENTERING THE MILITARY WE TOOK AN OATH. WE PROMISED TO PROTECT AND DEFEND AMERICAN FREEDOM, TO OBEY ORDERS, TO LIVE BY MILITARY RULES AND STANDARDS. IN THE COAST GUARD WE ALSO LIVE BY UNWRITTEN STANDARDS BORN OUT OF 209 YEARS OF TRADITION, DEVOTION TO DUTY AND SERVICE. IT IS THE STANDARD WHICH SENDS US OUT WHERE OTHERS WILL NOT GO.

TODAY, WE SAVE LIVES AND PROPERTY, AND WE ENFORCE OUR NATION'S MARITIME LAWS WITH THE SAME SPIRIT AS THE REVENUE CUTTERMEN, LIFE SAVING SERVICE SURFMEN, LIGHTHOUSE KEEPERS, AND COAST GUARD MEN AND WOMEN WHO HAVE SERVED BEFORE US.

OUR COURAGEOUS AND HUMANITARIAN DEEDS WILL BE RECORDED IN HISTORY ALONGSIDE THOSE OF OUR PREDECESSORS. FOR NOW, THEY REMAIN ETCHED IN THE FACE OF MOUNTAINOUS SEAS, BURNED INTO THE INKY BLACKNESS OF MOONLESS, STORMY NIGHTS. IT IS WRITTEN ON THE FACES OF THANKFUL PEOPLE AS THEIR HUSBANDS, WIVES, SONS AND DAUGHTERS ARE RETURNED SAFELY TO THEM BY NAMELESS MEN AND WOMEN WHO NEVER ASK FOR THANKS.

COURAGE AND DEVOTION TO DUTY CANNOT ALWAYS OVERCOME THE PERILS OF THE AIR AND SEA. MANY OF OUR COMRADES HAVE PAID THE ULTIMATE PRICE FOR THEIR COURAGE AND DEVOTION - SACRIFICING THEIR LIVES THAT OTHERS MIGHT LIVE.

THIS TABLE IS OUR WAY OF REMEMBERING THOSE MEMBERS OF THE ARMED FORCES WHO ARE NO LONGER WITH US.

THIS LANTERN - BURNING BRIGHTLY AND DRIVING THE SHADOWS BEFORE IT, SERVES AS A BEACON CALLING ALL TO REFLECT, BIDDING ALL TO JOIN US AS WE REMEMBER THEIR SELFLESS SACRIFICE.
(bell rung)

THIS TABLE SET FOR ONE IS SMALL - SYMBOLIZING THE FRAILTY OF ONE PERSON STANDING ALONE AGAINST THEIR CIRCUMSTANCES.
(bell rung)

THE TABLECLOTH IS WHITE - SYMBOLIZING THE NOBILITY OF THEIR INTENTIONS TO RESPOND TO THEIR COUNTRY'S CALL TO ARMS.
(bell rung)

A SINGLE ROSE REMINDS US OF THE FAMILIES AND LOVED ONES OF OUR SHIPMATES WHO KEEP THE FAITH WHILE AWAITING THEIR RETURN.
(bell rung)

A SLICE OF LEMON IS ON THE BREAD PLATE - SYMBOLIC OF THE FAMILIES' TEARS.
(bell rung)

THE GLASS IS INVERTED - THEY WILL NOT TOAST WITH US THIS NIGHT.
(bell rung)

THE CHAIR - THE CHAIR IS EMPTY - THEY ARE NOT HERE, BUT WE REMEMBER.

(bell rung)

REMEMBER - ALL OF YOU WHO FOLLOWED THEM, SERVED WITH THEM, AND CALLED THEM COMRADES, ALL OF YOU WHO DEPENDED UPON THEIR STRENGTH AND AID, ALL OF YOU WHO RELIED UPON THEM, FOR SURELY THEY HAVE NOT FORSAKEN US.

LADIES AND GENTLEMEN, PLEASE JOIN ME IN A MOMENT OF SILENCE AS WE REMEMBER THOSE THAT HAVE GONE BEFORE US AND CROSSED THE BAR."

(10 - 15 second pause)

~~**"TONIGHT WE'RE HONORED TO HAVE THE U.S. COAST GUARD'S HONOR GUARD PERFORM IN REMEMBRANCE OF THOSE WHO HAVE GONE BEFORE US. LEADING THE HONOR GUARD DETAIL IS _____. PLEASE JOIN ME IN WELCOMING THEM."**~~

RADM Naccara: **"THANK YOU CAPT BOYLE. BEFORE WE TURN TO OUR EVENING MEAL, MRS. TINA MILNE, SPOUSE OF A COAST GUARD OFFICER WILL SHARE A FEW THOUGHTS WITH US."**

(Mrs. Milne speaks)

1930 RADM Naccara: **"THANK YOU MRS. MILNE. THE EVENING MEAL WILL NOW BE SERVED.. ENJOY SOME FRIENDLY CONVERSATION WITH THOSE**

AROUND YOU AND HAVE A PLEASANT MEAL. WE WILL RESUME THE FORMAL PART OF OUR PROGRAM IN ABOUT ONE HOUR WITH FORMAL TOASTING."

(dinner)

2010 LCDR Troedsson: **"LADIES AND GENTLEMEN, BEFORE WE TAKE A 15 MINUTE INTERMISSION TO STRETCH AND CHARGE OUR GLASSES FOR TOASTING, PLEASE GIVE YOUR ATTENTION TO MR. PAT ROHAN, A CIVILIAN EMPLOYEE OF THE COAST GUARD, AND THE THIRD IN OUR SERIES OF REPRESENTATIVES OF THE COAST GUARD FAMILY. "**

(Mr. Rohan speaks)

2012 **THANK YOU MR. ROHAN. WE WILL NOW TAKE A 15 MINUTE INTERMISSION.**

(intermission)

2030 LCDR Troedsson: **"LADIES AND GENTLEMEN, PLEASE FIND YOUR TABLE AND BE SEATED. WE WILL BE CONTINUING OUR PROGRAM MOMENTARILY.** (pause) **OUR ~~FOURTH~~ NEXT SPEAKER IS LT KEN PIERRO, REPRESENTING OUR OFFICER CORPS."**

(LT Pierro speaks)

2035 LCDR Troedsson: **"THANK YOU LT PIERRO. LADIES AND GENTLEMEN, WE ARE FORTUNATE TONIGHT TO HAVE THE HONOR GUARD PERFORM FOR US. THE COAST GUARD HONOR GUARD PERFORMS THROUGHOUT THE COUNTRY IN MANY AND VARIOUS TYPES OF CEREMONIES. PLEASE JOIN ME NOW IN WELCOMING THE U.S. COAST GUARD HONOR GUARD LED BY ET2 HOUSTON DELANEY.**

(Honor Guard performs – 8 to 10 minutes in length)

LCDR Troedsson: **THANK YOU VERY MUCH FOR THAT WONDERFUL PERFORMANCE.** (applause) **LADIES AND GENTLEMEN, THE TRADITION OF TOASTING GOES BACK TO ANCIENT DAYS. ONCE A FORM OF CHALLENGE, RECORDS INDICATE THAT TOASTING BEGAN SOMEWHERE AROUND THE 16TH CENTURY WHEN PIECES OF TOAST WERE PUT IN GOBLETS TO FLAVOR THE WINE. WHEN THE TOAST BECAME SATURATED, IT WOULD SINK TO THE BOTTOM. SOMEONE WOULD CHALLENGE "TOAST" AND EVERYONE WOULD DRINK TO GET TO THEIR TOAST. THIS PRACTICE BECAME ASSOCIATED WITH HONORING INDIVIDUALS BECAUSE IT WAS NOT DONE ON ORDINARY, EVERY DAY OCCASIONS - PEOPLE COULD NOT AFFORD IT. TOAST AND WINE WERE USED ON SPECIAL OCCASIONS, USUALLY FOR A SPECIAL GUEST. IN ESSENCE,**

THE HOST WAS HONORING THE GUEST IF HE PLACED TOAST IN THE GUEST'S WINE GLASS. TODAY THE TOAST IS A MEANS OF SHOWING RESPECT AND RECOGNIZING KINDRED SPIRITS. TONIGHT WE PARTICIPATE IN THAT AGE OLD TRADITION".

MCPO Patton (Rise, chime dinner glass and wait for silence): **"ADMIRAL NACCARA, I PROPOSE A TOAST TO THE COMMANDER IN CHIEF, ~~PRESIDENT WILLIAM JEFFERSON CLINTON".~~ THE PRESIDENT OF THE UNITED STATES**

RADM Naccara (Rise, raise glass and reply): **"TO TH~~COMMANDER IN CHI~~E PRESIDENT"**

Guests rise, raise glasses and reply: "TO THE PRESIDENT"

LCDR Troedsson: (after toast) **"PLEASE BE SEATED."**

CWO Figueroa: (Rise, chime dinner glass and wait for silence): **"ADMIRAL NACCARA, I PROPOSE A TOAST TO THE UNITED .STATES ARMY".**

RADM Naccara: (Rise, raise glass and reply): **"TO THE UNITED STATES ARMY"**

(Guests rise, raise glasses and reply): "TO THE UNITED STATES ARMY"

LCDR Troedsson: (after toast) **"PLEASE BE SEATED."**

Mr. Rardon: (Rise, chime dinner glass and wait for silence): **"ADMIRAL NACCARA, I PROPOSE A TOAST TO THE UNITED STATES MARINE CORPS."**.

RADM Naccara: (Rise, raise glass and reply) **"TO THE UNITED STATES MARINE CORPS"**

Guests rise, raise glasses and reply: "TO THE UNITED STATES MARINE CORPS"

LCDR Troedsson: (after toast) **"PLEASE BE SEATED".**

Mrs. Pultz: (Rise, chime dinner glass and wait for silence): **"ADMIRAL NACCARA, I PROPOSE A TOAST TO THE UNITED STATES NAVY".**

RADM Naccara (Rise, raise glass and reply): **"TO THE UNITED STATES NAVY"**

Guests rise, raise glasses and reply: "TO THE UNITED STATES NAVY"

LCDR Troedsson (after toast) **"PLEASE BE SEATED."**

LT Lechthaler: (Rise, chime dinner glass and wait for silence): **"ADMIRAL NACCARA, I PROPOSE A TOAST TO THE UNITED STATES AIR FORCE".**

RADM Naccara (Rise, raise glass and reply):**"TO THE UNITED STATES AIR FORCE"**

Guests rise, raise glasses and reply: "TO THE UNITED STATES AIR FORCE"

LCDR Troedsson: (after toast) **"PLEASE BE SEATED."**

~~(Rise, chime dinner glass and wait for silence): "ADMIRAL NACCARA, I PROPOSE A TOAST TO THE U.S. MARINE CORPS".~~

~~RADM Naccara: (Rise, raise glass and reply) "TO THE U.S. MARINE CORPS"~~

Mr. Clyde Hart: Rise, chime dinner glass and wait for silence: **"ADMIRAL NACCARA, I PROPOSE A TOAST TO THE UNITED STATES COAST GUARD"**

RADM Naccara: (Rise, raise glass and reply): **"TO THE UNITED STATES COAST GUARD"**

Guests then rise, raise their glass and reply: "TO THE UNITED STATES COAST GUARD"

LCDR Troedsson: (after toast) **"PLEASE BE SEATED".**

2055 LCDR Troedsson: **"LADIES AND GENTLEMEN, LT KEVIN BROWN, A RESERVE OFFICER IN THE COAST GUARD, WILL BE OUR NEXT SPEAKER.**

(LT Brown's comments)

2058: LCDR Troedsson: **"THANK YOU LT BROWN. ~~, OUR FIFTH SPEAKER IS _____. (pause)~~ AT THIS TIME I'D LIKE TO INTRODUCE LCDR MELISSA BERT WHO WILL CONTINUE OUR PROGRAM WITH A BRIEF HISTORY OF THE COAST GUARD'S BATTLE STREAMERS."**

LCDR Bert: **"GOOD EVENING, LADIES AND GENTLEMEN. THE COAST GUARD HAS DISTINGUISHED ITSELF THROUGHOUT AMERICA'S MARITIME HISTORY. WE HAVE ALWAYS ASSUMED VARIED MISSIONS OF GREAT IMPORTANCE. A SMALL, BUT EVER READY FORCE, LIES WAITING TO ANSWER OUR NATION'S CALL. THE BATTLE STREAMERS PRESENTED BEFORE YOU THIS EVENING ARE REPRESENTATIONS OF THE SACRIFICES AND HEROIC ACTIONS OF THE MEN AND WOMEN OF**

OUR COAST GUARD TEAM IN ALL NAVAL ENCOUNTERS FROM 1798 TO THE PRESENT.

THE USE OF BATTLE STREAMERS BEGAN IN ANTIQUITY WHEN VARIOUS EMBLEMS WERE CARRIED INTO COMBAT. THE EAGLE OF IMPERIAL ROME WAS RECOGNIZED THROUGHOUT THE KNOWN WESTERN WORLD. IN TIME, SOLID OBJECTS GAVE WAY TO CLOTH BANNERS.

TODAY, A CLUSTER OF 34 MULTICOLORED BATTLE STREAMERS ADDS ANOTHER DIMENSION TO THE COAST GUARD FLAG. BESIDES HONORING COAST GUARD PERSONNEL THROUGHOUT HISTORY, THEY SERVE AS REMINDERS OF THE DECISIVE INFLUENCE OF SEA POWER ON THE ESTABLISHMENT OF THE NATION, AND ON ITS SECURITY AND WELFARE THROUGH THE ENTIRE PERIOD. THE COAST GUARD HAS BEEN AWARDED A TOTAL OF 34 BATTLE STREAMERS.

A SET OF COAST GUARD BATTLE STREAMERS HAS BEEN LAID OUT ON THE REMEMBRANCE TABLE. I INVITE YOU TO PERSONALLY INSPECT THEM WHEN OUR FORMAL PROGRAM IS COMPLETED. IN ADDITION, ON YOUR TABLE

YOU'LL FIND A BRIEF DESCRIPTION OF THE BATTLE STREAMERS THE COAST GUARD HAS EARNED.

I WOULD LIKE TO TAKE JUST A MOMENT TO HIGHLIGHT A FEW OF THE BANNERS:

THE *MARITIME PROTECTION OF THE NEW REPUBLIC* BATTLE STREAMER WAS PRESENTED IN RECOGNITION OF SERVICES THE REVENUE CUTTER SERVICE PERFORMED DURING THE FIRST YEARS OF THE UNITED STATES. DURING MOST OF THE 1790s, THE SOLE MARITIME FORCE PROTECTING THE YOUNG NATION WAS THE REVENUE CUTTER SERVICE.

THE FIRST MARITIME SHOT OF THE CIVIL WAR WAS FIRED BY THE CUTTER HARRIET LANE ACROSS THE BOW OF THE VESSEL NASHVILLE. 3000 MILES OF CONFEDERATE COASTLINE WERE BLOCKADED, CUTTING THE SUPPLY LINES OF THE SOUTH.

IN WORLD WAR I, THE COAST GUARD'S PROTECTION OF ALLIED SUPPLY CONVOYS WAS VITAL TO VICTORY. IN MID-1917, SIX CUTTERS FORMED A SQUADRON TO ESCORT CONVOYS BETWEEN GIBRALTAR AND GREAT

BRITAIN, AND ENGAGED GERMAN SUBMARINES IN THE MEDITERRANEAN. ONE CUTTER, THE TAMPA, WAS LOST WITH ALL HANDS IN 1918 AFTER SAFELY ESCORTING 18 CONVOYS.

IN WORLD WAR II THE COAST GUARD WAS CALLED UPON AGAIN TO PROTECT THE CONVOYS WHICH PROVIDED A VITAL SUPPLY LINE TO ALLIED FORCES IN EUROPE. SUBMARINE HUNTER-KILLER GROUPS WERE FORMED WHICH INCLUDED NUMEROUS COAST GUARD CUTTERS AND SMALL CRAFT. THE *WORLD WAR II VICTORY* BATTLE STREAMER WAS AMONG MANY THAT THE COAST GUARD EARNED DURING THE SECOND WORLD WAR. THE COAST GUARD WAS AN INTEGRAL PART OF ANTI-SUBMARINE WARFARE AND CONTINUED TO PERFORM ITS HUMANITARIAN MISSION IN THE RESCUE OF PERSONNEL WHO FELL VICTIM TO THE DEADLY TORPEDOES OF GERMAN U-BOATS. COAST GUARD CUTTERS AND COAST GUARD-MANNED LANDING CRAFT WERE INVOLVED IN LANDINGS IN NORTH AFRICA, ANZIO, SALERNO, SOUTHERN FRANCE, AND NORMANDY.

THE *ASIATIC-PACIFIC CAMPAIGN* STREAMER WAS AWARDED FOR COAST GUARD OPERATIONS IN THE PACIFIC THEATER

INCLUDING PEARL HARBOR - AND LANDINGS AT GUADALCANAL, TARAWA, AND THE PHILIPPINES.

DURING THE VIET NAM CONFLICT, THE *PRESIDENTIAL UNIT CITATION* WAS AWARDED TO SEVEN HIGH ENDURANCE CUTTERS AND 27 PATROL BOATS FOR A VARIETY OF EXTENDED OPERATIONS. CUTTERS WERE ALSO INVOLVED IN AIDS TO NAVIGATION OPERATIONS, SEARCHING SUSPICIOUS VESSELS, AND MERCHANT MARINE SAFETY OPERATIONS.

THE COAST GUARD WAS AWARDED THE *SOUTHWEST ASIA SERVICE MEDAL* - FOR SERVICE RENDERED THROUGHOUT THE GULF DURING OPERATIONS DESERT SHIELD AND STORM.

THIS BOLD DISPLAY OF BATTLE STREAMERS AND COLORS SERVES TO REMIND US OF THE SACRIFICES OF MEMBERS OF OUR TEAM AND THEIR COMMITMENT TO EXCELLENCE. THEY REMIND US THAT OUR TEAM HAS ALWAYS BEEN THERE, HOW WE WERE WILLING TO ADAPT TO THE NEEDS OF OUR NATION AS THEY CHANGED, AND HOW WORKING TOGETHER WE

UPHELD OUR CORE VALUES OF HONOR, RESPECT, AND DEVOTION TO DUTY. THESE ARE OUR COLORS AND WE DISPLAY THEM WITH PRIDE.
(band returns to stage)

2105 RADM Naccara: **"THANK YOU LCDR BERT.** (give band some time to finish returning to stage) **CAPT AL LARZELERE, U.S.C.G. (RETIRED), WOULD LIKE TO SAY A FEW WORDS."**

(CAPT Larzelere's comments)

RADM Naccara: **"THANK YOU CAPTAIN LARZELERE.** (pause) **AS MANY OF US KNOW, (EVEN SOME OF THE AVIATORS) PART OF THE DAILY ROUTINE ABOARD SHIP IS THE EVENING REPORT. THE COMMANDING OFFICER OF THE SHIP HEARS FROM EACH OF HIS DEPARTMENT HEADS ABOUT THE MATERIAL CONDITION OF THE SHIP. TONIGHT WE ARE REMINDED THAT SO MANY OF OUR BRETHREN ARE STANDING THE WATCH, SO IT IS APPROPRIATE TO SAY, NOW LAY BEFORE THE MAST ALL EVENING REPORTS. EVENING REPORTS WILL BE ACCEPTED BY OUR COMMANDING OFFICER, ADMIRAL JAMES M. LOY, COMMANDANT, U.S. COAST GUARD. AFTER RECEIVING EVENING REPORTS ADMIRAL LOY WILL MAKE A FEW COMMENTS AND INTRODUCE OUR GUEST SPEAKER"**

(LCDR Troedsson will make a general report (status of ships/aircraft/shore units, number of personnel assigned))

ADM Loy: accepts evening report, offers remarks, and introduces S-2

(Mr. Downey's remarks (approx 10 minutes)

RADM Naccara: **" WILL EVERYONE PLEASE STAND AS WE CLOSE THE FORMAL PART OF THE EVENING BY SINGING OUR SERVICE SONG. THE WORDS TO SEMPER PARATUS MAY BE FOUND ON THE BACK COVER OF YOUR PROGRAM.**

(sing *Semper Paratus*)

RADM Naccara: **"PLEASE BE SEATED.** (pause) **THANK YOU FOR JOINING US IN TONIGHT'S CELEBRATION. A SPECIAL THANK YOU TO THE *COMMODORES* AND THEIR LEADER Master Chief Petty Officer Gaus FOR THEIR MUSIC TONIGHT.** (pause/applause) **THANK YOU ALSO, TO _____ AND THE ARMED FORCES COLOR GUARD AND TO ET2 Houston Delaney AND THE COAST GUARD HONOR GUARD FOR THEIR OUTSTANDING PERFORMANCES THIS EVENING. ON BEHALF OF ALL OF US WHO HAVE ENJOYED THIS EVENING, SPECIAL THANKS TO CAPTAIN PAT BOYLE AND HIS TEAM OF OFFICERS' ASSOCIATION VOLUNTEERS WHO HAVE CONTRIBUTED SO MANY HOURS TO THE SUCCESS OF OUR FIRST COAST GUARD BALL.** (pause/applause). **PLEASE JOIN ME IN A ROUND OF**

APPLAUSE FOR ALL OF THE PARTICIPANTS IN TONIGHT'S PROGRAM. (applause)

THIS CONCLUDES THE FORMAL PART OF TONIGHT'S CELEBRATION. THE *COMMODORES* WILL PROVIDE DANCE MUSIC; PLEASE ENJOY AN EVENING OF DANCING. WHEN YOU DEPART TONIGHT, PLEASE DO SO RESPONSIBLY, AND ~~PLEASE~~ LOOK AFTER YOUR FELLOW SHIPMATES. THANK YOU FOR COMING."

TALKING POINTS
DEPUTY SECRETARY OF TRANSPORTATION
MORTIMER DOWNEY
Panel on Getting Results, Measuring Performance and Sustaining Momentum
Leadership Conference for Presidential Appointees and Nominees
NOVEMBER 10, 1999

- Thank you Pat, I am pleased to join you for what I hope will be a very valuable Leadership Conference session.

- This Leadership Conference comes at a good time. With fourteen months left of this Administration, we all must renew our efforts to ensure that we focus on the outcomes goals we have each set to make sure that our government works better and serves the people.

- To give you some perspective, the Department of Transportation brings together most of the Federal government responsibilities for operating, regulating and funding transportation in this county. It is an organization of eleven strong operating administrations – employing about 99,000 civilians and military. The work of the Department – and our partners -- both state and local governments as well as private industry –represents 11% of the nation's Gross Domestic Product – and impacts the daily lives of every one of us.

- The process of implementing GPRA at DOT has been an important tool to allow us to focus on what we want to accomplish, defining what success looks like and then setting about to actually achieve the goals.

- Based on our experience, I want to share with you the lessons we learned:

Keep senior leadership visible and committed:

- The Secretary challenged us to transform our way of thinking and acting to ensure that we could deliver a transportation system for the 21st Century. He also challenged us to be visionary -- to think beyond "asphalt and steel" – to remember that transportation is and must remain a factor in the prosperity, safety, and quality of daily life for all Americans.

- The Secretary and I were closely involved in preparing our plans and continue to meet on a regular basis.

- In early FY '98, the Secretary convened both senior career and appointed staff to think about working differently – partnering for excellence – to ensure that we achieved those goals we had set for the Department. Creating both buy-in and accountability.

- Each senior official, and through them their senior career staff, have an annual performance agreement and I meet monthly with the heads of our agencies to see that nothing stands in the way of progress.

Be inclusive. As important as leadership is success depends on everyone. To get results employees, partners, and stakeholders all must be part of the process.

- '97 plan process began two and half years ago and used a structured, consensus-based approach involving more than 200 career and appointed staff and a series of meetings with stakeholders and partners to seek their reaction.

- We held our first ever – Regional Leadership meeting – where representatives of all the operating administrations from all the regions – well over 100 career individuals – were brought together to discuss the transformation of the Department.

- We have held a series of meetings with state and local and industry partners to seek their suggestions and concerns.

Focus on what you want to accomplish --what the results should be; keep working on what that means and how to best accomplish it.

- Focusing on the basics -- realistic view of current situation and future trends; simple vision; core missions; 5 clear strategic goals; 6 cross-cutting management goals to advance strategic goals (esp. ONE DOT).

- To understand how this helped us when we started with the Strategic Plan everyone agreed wanted to improve safety, but how would we do it? What measures would we use? After a lot of discussion the '97 Strategic Plan says "by working towards the elimination of transportation-related deaths, injuries…" Not too precise!

- Today, we are much clearer: We know we want to not only reduce the rates of fatalities and injuries but the actual numbers of deaths and injuries. We have examined both

causes (speed, fatigue, alcohol) and interventions (seat belts, safer vehicles and human factors).

- As part of our Performance Plan, we identified 17 safety performance measures to set goals and track how we are doing. Goals like: "Increase seat belt use nationwide to 85% in 2000 and 90% in 2005." (It was 69%) "Reduce the %age of fatalities which are alcohol-related from 41% to 35%." We set goals for rail safety—reduce the rate of crashes and fatalities, reduce trespassing on rail property and reduce the rate of grade crossing crashes. And this summer, we revised our goals for commercial vehicle-related fatalities to reduce by 50% the number of fatalities caused by trucks.

Change the culture. The emphasis on outcomes demands teamwork and crosscutting collaboration.

- Developing the plan was not enough. We needed to keep going back to it and testing whether what we were doing was making a difference. We also needed to work differently and that required changes in the culture.

- We worked through the management concept of ONE DOT. ONE DOT builds on the collaboration of the different modes of transportation and expands our ability to ***work better together.*** We began a series of Partnering for Excellence learning sessions for employees at all levels of the Department – brought together to learn the tools of working better together and challenged to create action plans to deliver on commitments which the participants agreed would advance the strategic plan. ONEDOT challenges us to commit to continued excellence and collaboration with each other.

Make it real. Managers need to identify focused goals and create connections to measures that are specific, quantifiable and relevant to the public.

- In February of this year, the Senior Leadership Team convened a meeting of about 180 leaders from throughout the Department – over 120 of those attending were career leaders – leaders by virtue of who they are and what they do, not as a result of their positions

- At this meeting, a limited number of initiatives (Flagships) to be significantly accomplished in the two remaining years of the Administration were agreed to. These flagships are lead by career employees, staffed by teams of employees from across all DOT and championed by the SLT.

- At the suggestion of regional staff, we created ONE DOT regional teams led by the regional administrators (or other leaders) from each Operating Administration – we gave them the discretion to pursue issues important to their regions – and we assigned one of the Presidential appointees as their "champion" to work thru the red tape that often accompanies trying to get something done across organizational lines in the field.

- Based on the goals, these teams began to develop joint work agendas to help deliver the message on safety.
  - In Atlanta—Delta airlines message—FAA went with NHTSA folks to the airline.
  - Buckle Up America campaign.
  - Developed local coalitions to urge states to pass primary seat belt laws.
  - Developed local safety agendas and sponsored safe community/safety conferences in each region.

- Rail Safety—focused on investing in safety programs, providing public education on risks and developing technology—
- Developed joint FRA/FHWA/NHTSA/FTA rail crossing initiative
- RR worker safety effort
- Joint inspections of hazardous material container

And, we have already begun to see results:

- Seat Belt useage rates last year increased for the first time in several years.
- In FY '98 the alcohol rate declined to 38.4%; overall fatalities also declined by 1.3%. The rate of alcohol-related crashes among youth 15-20 was the lowest since record keeping began in 1982.
- RR safety improved: 27% reduction in RR employee fatalities, 33% reduction in passenger fatalities, highway-rail incidents declined by 9%, highway-rail injuries dropped by 15% and highway-grade crossing fatalities involving motor vehicles dropped 12% between '97 and '98. Results even more striking between 92-98: reduction of fatalities--93% reduction employee fatalities --42%, reduction highway-rail incidents --28%, reduction of highway-rail fatalities-- 31% and reduction of highway-rail injuries --29% all the while RR operations as measured by train miles increased by 11%

The transformation of the Department is well underway

Remarks Prepared for Delivery by

Deputy Secretary of Transportation Mortimer L. Downey,

on the occasion of the

Rail Passenger Vehicle Crash Test

Pueblo, Colorado

November 16, 1999

Introduction

- Thank you Steve and good morning everyone.
- I welcome you here today for this test, which I hope you will find to be ~~both informative and interesting~~.
- We at the Department of Transportation have been proud to partner with the ~~Volpe National Transportation Systems Center~~, Simula ~~Technologies~~, and The American Public Transportation Association (APTA) in this particular project.
- This crash test is a perfect example of collaboration both within the Department and with industry.
- ~~FHWA~~ and FAA have pioneered the use of crash testing as a means of accident modeling. This first FRA crash test is an example of the One DOT methodology ~~which~~ is becoming the culture within the Department and provides proof that working together is the way of the future.
- For many years now, Vice President Gore has challenged us to try new ways of doing our work smarter and better together.

- It was this public/private partnership that combined to bring you this important test today.

- This partnership is unique in that it is the first rail crash test in the nation to use both public and private funds,

- Time and time again, we are proving in the transportation sector that public/private partnerships are the best way to accomplish major projects.

- This Administration has also been a strong supporter of intercity passenger rail service as an important part of our nation's transportation system.

- The Clinton/Gore Administration reversed past policy and has annually sought significant funding for investment in intercity passenger rail development, including the Acela high-speed rail service expected to begin in the Northeast Corridor next year.

- Our commitment to rail passenger service is not rooted in nostalgia, we really are looking to the future. We understand that mobility is one of the engines that moves our economy,

- When you consider the strategic goals of our Department – safety, mobility, economic growth, environmental quality and national security – you see why rail investment is on our agenda. It touches all of the bases.

- If we want a future with the level of economic growth we've had since the Clinton/Gore team came to office, we have to continue to invest in rail and as well as other forms of transportation.

- Passenger rail has many benefits when we think about the challenges of meeting the mobility needs of a growing population in a cost effective and environmentally sensitive manner.
- For passenger rail to be effective, it must be safe, and that is why we are gathered here today.
- Secretary Slater has said that we must "keep safety as our North Star."
- I urge test participants to continue to continue to hone and refine your data and to provide our Nation with the safest rail transportation system in the world.
- Thank you.

Pam - FYI
Not yet signed
Claire
11/9

U.S. Department of Transportation
Federal Railroad Administration

Memorandum

Date:

Reply To Attn. of:

Subject: **INFORMATION**: Full-scale Passenger Rail Vehicle Crash Test

From: Jolene M. Molitoris
Administrator

To: The Deputy Secretary

The first of a series of tests to measure the behavior, under in-line train-to-train collision conditions, of US passenger rail cars will be performed on November 16, 1999, at the Transportation Technology Center (TTC) near Pueblo, Colorado.

Background:
On May 12, 1999, FRA issued the first Passenger Equipment Safety Standards. While developing those rules, many of the technical issues related to occupant protection were less than adequately addressed because of lack of engineering data. Thus, a series of research tests are being planned to measure the behavior of passenger equipment under collision conditions to demonstrate the effectiveness of:

- improved-crashworthiness cab car structural designs
- improved-crashworthiness coach car structural designs
- improved occupant protection strategies.

On May 19, 1999, the American Public Transit Association (APTA) released the new Passenger Rail Equipment Safety Standards and Recommended Practices. The FRA supported APTA's development of additional voluntary industry safety standards for rail passenger equipment.

This crash test project is funded by the FRA in cooperation with commuter railroad operators represented by the APTA, the suppliers represented by the Railway Progress Institute, and the unions represented by the Brotherhood of Locomotive Engineers and the United Transportation Union. The National Transportation Safety Board (NTSB) has participated on the technical committee that planned this series of crash tests, and assistance was also received from both NHTSA and FAA.

The data collected in the tests will be used to calibrate and validate computer models that will then be used to simulate a far wider range of collision conditions.

Technical Issues

There are three principal technical areas that require test data to further the understanding of train collisions; they are:

- Car-to-Car Interactions
- Large Crush Distances
- Secondary Collision Environment

Much of the basic technical understanding of the dynamic crushing of structures comes from the aerospace and automotive industries and related government research, including NHTSA and FAA. In a survivable automobile collision and in a survivable aircraft accident (failed landing or takeoff attempt), the structure typically remains in one piece, and the crush is limited to approximately three feet or less. In contrast, during a train collision the crush of the cars can greatly exceed three feet and large portions of the carbody structure can be separated from the car. Because it contributes relatively modestly to the crush behavior of automobiles and aircraft in survivable collisions, the modeling of material failure has not been as extensively validated as other aspects of the dynamic collapse of structures. Accurate modeling of material failure is required to accurately analyze train collisions.

Modeling and testing to date of occupant interactions with the interior of cars during train collisions has been limited to longitudinal motion. Sleds have been used to test occupant response in small portions (two row of seats) of train interiors. Initial analysis of occupant dynamics during train collisions have been limited by initial modeling of train to train collisions, which have been one dimensional. In essence, only the longitudinal motion of the train has been considered in studies of occupant protection to date – the influence of the pitch and yaw motions of the car on occupant response have been neglected. However, pitch motions of the car may be quite significant – large vertical accelerations can arise when the car bottoms out on its suspension, as it is may do during a collision. Subsequent analysis of train-to-train collisions have been developed which are three-dimensional. The influence of the vertical and lateral car accelerations on occupant response and the effectiveness of occupant protection in the better-defined secondary collision environment needs to be determined.

Summary Description of Tests

The planned tests will measure the behavior of passenger equipment built to traditional North American design practice under in-line train-to-train collision conditions. These test requirements are for a single passenger car dynamic crush test, with simultaneous testing of occupant protection in selected interior configurations. The selected interior configurations include unrestrained occupants seated in forward facing seats, unrestrained occupants seated in rear facing seats, and lap and shoulder belt restrained occupants in forward facing seats.

The approach to be used in dynamic crush testing of the car is to run the car at approximately 30 mph into a fixed wall, with instrumented and uninstrumented test dummies seated unrestrained and restrained in forward facing seats, and unrestrained in rear facing seats.

Equipment to be Tested

A Budd Co. Pioneer car, also known as the SEPTA Silverliner I, built to a 1957 design, has been instrumented with strain gages and accelerometers for the test. All original interior seats were removed and three pairs of M-Style seats manufactured by Coach and Car Co. were installed for forward and rear facing unrestrained occupant tests. In addition, two pairs of traditional Amtrak seats, one modified to accept lap and shoulder belts, were installed at the forward end. Ten instrumented Anthropometric Test Devices ("dummies") have been installed to measure the injury hazard conditions inside the vehicle. In all, more than 200 channels of data regarding stress, displacements, accelerations, and strains will be collected. High-speed video cameras have been installed to record the dynamic response of the seats and dummies.

Project Team

The FRA's Office of Research and Development assembled and supervised a technical team to perform the test:

- Volpe National Transportation System Center – provides technical requirements and analytical support; coordinates final report
- Simula Inc. – prepared passenger seats and instrumented devices to study the responses of dummies and crashworthiness of interior equipment
- Transportation Technology Center, Inc.(TTCI) – installed crash wall, provides instrumentation of the carbody, coordinates and performs the crash test
- American Public Transit Association – provides technical advice and test vehicles.

Invited Guests

Invitations to observe this test have been sent to Congressional members and staff of the appropriate Authorizing and Appropriations Committees and Subcommittees, APTA, Amtrak, commuter railroad operators, railroad labor, emergency responders, various railroad consultants and academia, foreign railroad organizations, Railway Progress Institute, NTSB, NHTSA, FAA, FTA, as well as FRA's Office of Research and Development, Office of Safety, and Office of Policy.

Press

This event is open to the press. A media advisory will be sent out on Tuesday, November 9, 1999, to the Washington, DC press corps and trade press. In addition, electronic and print media in Denver, Colorado Springs, and Pueblo, Colorado, and Phoenix, Arizona (Simula, Inc. has its headquarters in Arizona) will be contacted. Selected media in Philadelphia will also be contacted (SEPTA is donating the rail car for the crash test). Two film crews from London – the BBC and Darlow-Smithson Productions – and *Railway Gazette International*, a magazine, have contacted the FRA about attending the event. The London press have been doing follow-up stories from the Paddington crash. Initial contact has been made with the networks - ABC, NBC, CBS, CNN, and FOX.

The press are invited to the briefing at Harris Hall. They will be transported, along with the guests, to the test site. Print and radio media will sit in the bleachers. TV crews will have three areas in which to set up their cameras, one area will be for cameras only, no crew.

After the crash test, the media will be transported back to Harris Hall where there will be one-on-one opportunities for the Deputy Secretary, the Administrator, APTA, TTCI, Simula, and Volpe.

Finally, the media have also been invited to tour the TTC after the test.

Talking points for your remarks:

- Welcome to the DOT -owned TTC, where high-speed ground transportation testing began in 1972.
- TTC has contributed to significantly to the safety of railroad transportation in the US, including crash tests of tank cars that reduced hazard to the tank car fleet.
- Safety is the first priority at the DOT.
- Safety in rail transportation has been greatly improved since 1993.
- Rail transportation is the safest mode of ground transportation.
- This passenger vehicle crash test will lay the foundation of better technology for years to come.
- DOT will support other similar technological research into the next millennium.

Attachment

#

SINGLE PASSENGER RAIL CAR CRASH TEST

TRANSPORTATION TECHNOLOGY CENTER
PUEBLO, COLORADO

TUESDAY, NOVEMBER 16, 1999

AGENDA

9:30 a.m.	Registration Harris Hall
9:45 a.m.	Welcome and Introduction of Speakers Steve Ditmeyer, Director, Office of Research and Development Federal Railroad Administration
	Roy Allen, President Transportation Technology Center, Inc.
	The Honorable Jolene M. Molitoris Administrator, Federal Railroad Administration
	The Honorable Mortimer L. Downey Deputy Secretary, U.S. Department of Transportation
10:00 a.m.	Test Overview
	Steve Ditmeyer, Director, Office of Research and Development Federal Railroad Administration
	Kris Severson, Mechanical Engineer Volpe National Transportation Systems Center
	Dr. Barrie V. Brickle, Scientist TTCI
	Joseph Coltman, President Simula Technologies, Inc.
	William Millar, President American Public Transit Association
10:45 a.m.	Safety Briefing Terry Terrill, TTCI

11:00 a.m.	**Depart for Test Site** **(Note: If test delayed, begin TTCI tour for 1 hour, 15 minutes)**
11:10 a.m.	**Arrive Test Site**
11:20 a.m.	**Crash Test**
11:50 a.m.	**Test Ends - Transport to Harris Hall**
12:00 a.m.	**Lunch**
12:30 a.m.	**TTCI Tour Begins** - **Hazmat Training Facility** - **FAST Test Facility** - **RTT/Acela Test Program**
1:30 p.m.	**Tour Ends, Depart TTCI**

Remarks Prepared for Delivery by

Deputy Secretary of Transportation Mortimer Downey

during the

Eno Transportation Foundation, Inc.'s
Seminar Series on Global Warming

Monday, November 22, 1999
11:30 am - 2:30 pm

Thank you Damien (Kulash), and welcome everyone. I have learned a great deal attending this series on global warming, and I am confident that today's presentation will be informative. I say this because I heard today's speaker, Kyle Danish of the Van Ness Feldman law firm here in Washington, give a talk during a seminar in September at DOT's Volpe Center in Cambridge, Massachusetts. (Could say something about his presentation)

All of us know the issue at hand. By 2020, the world's appetite for energy -- for transportation, electricity and other basic needs -- is likely to be twice what it was in 1990.

Without changes in energy and environmental policies or technologies -- or both -- global carbon emissions are forecast to increase by more than 80 percent from 1990 levels. Concentrations of carbon dioxide, the most heavily-emitted greenhouse gases, are increasing dramatically. Even with concerted effort now, the freight train of global warming will be tough to slow down.

Transportation accounts for 26 percent of the nation's emissions, and they are increasing faster than those in any other sector. Therefore, the transportation sector will be a vital part of our national strategy for reducing greenhouse gas emissions.

There is controversy surrounding climate change and Kyoto, but we have seen some changes in attitude in recent years. The scientific facts are more accepted, particularly by the public. A number of CEOs of major corporations have voluntarily committed to reduce emissions and understand the benefits of doing so earlier rather than later.

The environmental impact that greenhouse gas emissions create will require a global solution. This was recognized in the United Nations Framework Convention on Climate Change negotiated in 1992.

Along with the robust economic growth, U.S. emissions have been increasing every year. Thus, the challenge we face today is even greater -- and the new target of 7 percent below 1990 emissions levels really represents about a 25 percent emissions reduction.

The nature of the U.S. commitment is still an issue for the Senate, but we believe the conditions they have set for ratification, which include substantial participation by developing countries, can and will be met.

The longer we wait, the harder it will be. That is why President Clinton and Vice President Gore say it is time for us to get started.

There will be conflicts, and choices will have to be made. But, on a larger scale, we need not choose between prosperity and environmental protection. Environmental problems come not from

growth, but from thoughtless growth

Today, Kyle Danish is going to talk to us about the new frontier of credit for early action programs and international emissions trading and why they could become the catalysts for reducing greenhouse gas emissions. Mr. Danish attended the recent international negotiations on climate change in Bonn, Germany and will update us on what's happening with the Kyoto Protocol and other international issues.

At Van Ness Feldman, Kyle focuses on domestic and international environmental matters, with special emphasis on global climate change and on federal and state air regulatory issues. Before practicing law, Kyle worked on environmental issues on the state level in Richmond, Virginia and at the United Nations Development Programme. He received his law degree from Temple University and also attended my alma mater, Princeton University, for his Masters Degree in Public Affairs at the Woodrow Wilson School of Public and International

Affairs.

It is my pleasure to introduce Kyle Danish.

Remarks prepared for Delivery by

Deputy Secretary of Transportation Mortimer Downey

During the

Symposium on Weather Information
for Surface Transportation
Delivering Improved Safety and Efficiency for Tomorrow

Thank you, Sam (Williamson), and good morning everyone. And thank you for attending our first major meeting on weather information for surface transportation.

Charles Dudley Warner, an African American writer and co-author of *The Gilded Age* with Mark Twain, once said, "Everybody talks about the weather, but nobody does anything about it!" And I had sworn to myself that I wouldn't use that oft-used quote today. But, upon reflection, I decided it sets the right tone for this morning's agenda.

We can't control the weather (at least not yet!), but we can do something about it in terms of actions to improve safety and mobility in inclement weather.

As Sam said, we have been working with our meeting co-sponsors, the National Oceanic and Atmospheric Administration (NOAA) and the Office of the Federal Coordinator for Meteorology (OFCM), to develop improved and better coordinated weather forecasting for surface transportation. We appreciate their leadership and involvement and look forward to working with them to see a national weather information system for surface transportation put into place.

Dr. James Baker is our other keynote speaker, and I look forward to hearing what he has to say about the issues and the challenges involved. He's a strong partner in many of our aviation and maritime activities, and I'm happy to extend that partnership to surface transportation as well.

Why Weather Forecasting for Surface Transportation?

Today, I am going to focus my remarks on why improving the weather forecasting and warnings systems for surface transportation is important, and what kind of coordination is needed for success.

Traditionally, the focus of weather forecasting has been on conditions in the atmosphere and general precipitation, with only the most general information on road conditions. We've all heard local weather updates or news anchors say that roads are "slick" in places or are "passable." DOT believes that safety, mobility and productivity can be greatly improved by providing the public with: 1) information that is route-specific; 2) more accurate near-term weather predictions; and 3) reports about conditions that specifically affect surface transportation users and managers. This is equally true for both roadway and railroad track bed conditions and waterways.

Providing weather information for surface transportation is a multi-step process. It starts with the excellent foundation of national and commercial weather service products, which can be tailored into the specific types of road-weather information that best meet the needs of users, whether they be travelers or a maintenance crew. Pulling together and communicating this information requires extra work and coordination on the part of both the weather and transportation communities from both federal and state agencies, many which are represented here today. We believe that joint programs with the Department of Commerce for observational systems and enhanced products are needed.

While detailed weather forecasting for surface transportation will certainly benefit metropolitan areas, the roads and railroad tracks of rural America, where most of America doesn't live but where many travel, would also benefit from improved road-weather information.

Having better weather information is not just a matter of convenience -- it is about saving lives. Each year in this country, we have an average of 6,500 fatal roadway crashes occurring during bad weather, which is about 17% of all fatal crashes. Of those, 60% happen in rural areas, primarily on non-interstate roads. But even the Interstates can be affected, as we saw in last weekend's huge bus crash on Pennsylvania's I-80, where 4 Greyhound buses followed each other off the road with fatal consequences.

In addition to travelers, snow plow drivers and other maintenance staff could benefit from better weather and road condition information. We have found through research that if storm maintenance crews knew more about road conditions ahead of time, they could cut snow removal operating costs, particularly for materials and labor, by about 10%. Given that about $2 billion is spent each year on snow and ice control, this could amount to additional taxpayer savings on the order of $200 million.

Detailed weather forecasts for surface transportation could also help traffic managers, school administrators, transit and commercial truck operators.

We believe that we can -- and should -- use weather forecasting to prepare people better for trips by truck, train and commuter rail. We benefit from this information when ( ) % of us travel by plane, so why not do the same for the ( )% of us moving on surface transportation? We have an extensive aviation weather program and our FAA maintains close working relationships with the OFCM and the National Weather Service. For this reason, we have tangible products and services such as terminal and route forecasts that serve needs for safety and optimal flight planning. The FAA and National Weather Service participate in joint programs for observational systems and weather services for aviation in the National Aviation Weather Center and the Center Weather Service Units. These joint programs provide weather support to air space users and air traffic controllers over the entire airspace system.

Right now, we don't have that kind of comprehensive and reliable capability for our surface transportation system, but the latent demand is there. People are showing an interest in smart vehicles that can anticipate problems and help them decide to take alternate routes. Millions of people who log onto Weather.com and similar websites are looking for travel-related weather information so they can anticipate hazards and make their trip safer and less stressful.

Christine Johnson and others in the Federal Highway Administration (FHWA) think that weather forecasting for surface transportation is a good idea and have reached out ~~with~~ to the OFCM and the NOAA weather experts. They, too, thought it was a good idea. So, now we have a Joint Action Group (JAG) to define the needs and to coordinate efforts toward developing a national weather forecasting system for surface transportation.

Developing solid weather forecasting for surface transportation - highways, rail and transit - will require a broad and strong public/private partnership to make it work. Many state DOTs are already developing weather forecasting systems for surface transportation, particularly in mountainous and storm-prone regions. Several multi-state initiatives are bringing ITS together with advanced weather prediction systems to create operational highway management and traveler information systems throughout North America. These programs envision a widely accessible road and weather information system that will support seamless information sharing for travelers, highway maintenance managers, and transportation operations managers.

Hurricanes demand attention because of their impact on coastal developments, beaches, and of course, roads and highways. Emergency managers and travelers depend on road condition information before and during hurricanes because escaping the path of the storm could mean life or death. Not only do they need to know if the roads are open, but also if the roads have reached capacity.

In the case of Hurricane Floyd, the transportation system became overloaded, taking some people 18 hours to reach shelters. While this took less time than the road models predicted, the public found the delays unacceptable. They think we could do much better, and they are probably right.

Some states are moving ahead with specialized road and weather information systems. Washington State transportation officials report mountain pass road weather conditions on the Internet to help travelers. One official noted: "After getting 10 million hits on the website during the 1997-98 winter season, we discovered the traveling public has a voracious appetite for road and weather condition information." Thus, Washington State DOT joined a consortium of agencies that need weather information and, together, they are implementing a system for providing travelers with more and better weather information. Washington State recently installed an automated weather station for state ferries that cross the Puget Sound.

Another initiative, sponsored by the Federal Highway Administration and the North and South Dakota DOTs is the Advanced Transportation Weather Information System (ATWIS). This system is the first rural road condition information and weather forecast in-vehicle system in the U.S. Forecasts are made available to cellular phone users through a computer telephone system that queries users about their location and their direction of travel. During one snow storm the system can accommodate up to 2,000 calls.

It's not surprising that technology will play a key role in developing a system that provides accurate, tailored weather and surface transportation information. And, DOT's ITS program is working to bring the technologies together with the communication systems we have in place. We are collaborating with industry, universities and other research organizations to provide the vehicle technologies and the mechanisms to get the right information to the right people at the right time.

One example of our efforts is the new Dedicated Short Range Communication (DSRC) ruling by the FCC, which will enable providers to send route-specific road condition information directly to the vehicle.

We are working with state and local transportation officials to employ sensors to detect road and weather conditions for better and more efficient winter road maintenance, particularly in northern states.

Everything we are considering is not necessarily expensive or high tech; many weather-related solutions we are low-tech and practical. For example, at bridges and overpasses or sites where ice tends to form, we can install detectors connected to electronic signs that warn drivers of the icy conditions. This solution is both simple and inexpensive.

The Federal Transit Administration (FTA) plays an important role in the Department's efforts to improve weather information for surface transportation. FTA is working with the Federal Highway Administration and the other modal administrations to encourage deployment of Intelligent Transportation System technologies to improve rail and bus transportation system management.

FTA working with ITS to develop and deploy Automatic Vehicle Location systems based on Global Positioning Satellites and Geographic Information Systems to keep buses, light rail, and pedestrians safe. They are also using variable information signage, and automatic passenger counting data streams to assess fleet management strategies.

FTA is currently testing a remote sensing device in Las Vegas, Nevada to improve the air quality attributed to the pollution and dust from the Los Angeles air basin and the San Joaquin Valley. FTA has also implemented an air quality model called TRANSIMS (Transportation Analysis and Simulation System), which analyzes air quality and emissions impacts from transport using National Weather Service data.

Conclusion

Now is the time to invest in infrastructure improvements like ITS for weather forecasting because we have the strongest Post-Cold War economy.

Since 1993, President Clinton and Vice President Gore have led America in preparing for the 21st Century. Under their leadership, we have a balanced budget, nearly 20 million new jobs, and the lowest unemployment in 30 years.

With such a strong economy, we have the opportunity to invest in America's infrastructure and create a transportation system that will help us continue to prosper as a nation.

President Clinton and Vice President Gore understand the connection between upgrading our transportation infrastructure and growing our economy. Under the Transportation Equity Act for the 21st Century, we will invest more than $200 billion to upgrade our transportation system over the six-year life of the law. This year alone, the ITS program will receive $211 million in funding. Of the $98 million of this allotted to ITS research and development, the Weather and Winter Mobility program will receive about $2 million.

This is an opportune time to improve both safety -- DOT's number 1 goal -- and mobility -- our 2nd most important goal. So Let's work together and communicate often at forums like this one.

DOT will ~~work~~ collaborate with the OFCM and the National Weather Service to make the case for investment in our nation's weather information system. Two critical foundation pieces are already ~~in place~~ ongoing - the National Weather Service modernization and Intelligent Transportation Systems. Let's find ways to maximize these investments to achieve our safety, mobility and productivity goals. Further, we want to develop an esprit de corps across all the key parties - the meteorological community, the surface transportation community, the public agencies, and the private industry. — towards the end of Safer Surface Travel.

Our ultimate goal is one the American people will, I hope, understand and applaud – to develop a national weather information system for surface transportation that will make travel safer and more efficient for the public we serve.

Thank you.

November 30, 1999
9 am

Symposium on Weather Information for Surface Transportation

Holiday Inn
Silver Spring, Maryland

Briefing Paper

Event Contact: Christine Johnson at 6-0408 or Paul Pisano at 6-1301.

YOUR ROLE: 15- to 20-minute keynote address. Sam Williamson, Federal Coordinator for Meteorology (OFCM), will introduce you.

As one of two opening keynote speakers, you will set the tone for the meeting as well as follow-up action. You will talk about how safety, mobility and productivity can be improved if we provide the public and motor carriers with better weather and road condition information. Travelers and commuters will find more specific information about road conditions and alternate routes useful, and technology is playing a key role.

EVENT: The goal of our symposium is to establish the national needs and requirements for weather information associated with decision-making actions involving surface transportation. This goal is consistent with TEA-21.

The Office of the Federal Coordinator for Meteorological Services and Supporting Research (OFCM) and the U.S. Department of Transportation – Federal Highway Administration (USDOT-FHWA) are co-sponsoring this symposium. We plan to have representatives from across the country participate.

Other Keynote Speaker: The Honorable D. James Baker,
Under Secretary of Commerce for Oceans and Atmosphere
Topic: Weather Information Capabilities

AUDIENCE: About 150, including scientists, engineers and managers from federal, state and local government agencies and organizations.

AUDIENCE ISSUES: What are the overall, relevant weather information issues and needs for surface transportation?

How do we coordinate among the agencies and organizations that we have brought together to develop surface transportation weather forecasting?

What role will technology play?

SETUP: Hotel ballroom set up theatre style with podium in front.

PRELIMINARY AGENDA

KEYNOTE SPEAKERS:

The Honorable Mortimer L. Downey,
Deputy Secretary of Transportation
Topic: National Transportation Infrastructure

The Honorable D. James Baker,
Under Secretary of Commerce for Oceans and Atmosphere
Topic: Weather Information Capabilities

Tuesday, November 30, 1999

7 AM - Registration and Continental Breakfast

Morning Session: Federal Agency Overviews

9 AM - Keynote Addresses
10 AM - Transportation Operations and Architecture

Noon - Working Lunch

Afternoon Session: Overviews

1:30 PM - Transportation Weather-Related Issues
2:00 PM - Panel 1: DOC and DOD Weather Services and Capabilities
2:30 PM - Panel 2: Commercial Weather Information Production Capabilities and Services

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Wednesday, December 1, 1999

7 AM - Continental Breakfast

Morning Session: Weather Information Needs

7:45 AM - Panel 3: Federal Agency Needs
- Panel 4: State and Local Needs
- Panel 5: Professional and Trade Organizations Needs

Noon - Working Lunch

Afternoon Session: Weather Information Needs

1:30 PM - Breakout Sessions:

(1) State Needs
(2) Local Rural/Urban Needs
(3) Professional and Trade Organizations Needs

4:30 PM - Turn-in Requirements Questionnaire

Thursday, December 2, 1999

7 AM - Continental Breakfast

Morning Session: Weather Information Research

8:00 AM - Recap of Day 2 Panel and Breakout Sessions
9:00 AM - Panel 6: Research/Technology Innovation and Decision Support

Panel 6: Research/Technology Innovation and Decision Support

Noon - Working Lunch

Afternoon Session: **Wrap-up**

1:30 PM - Action Plan/Next Steps
2:30 PM - Adjournment

INPUT FOR MORTIMER DOWNEY'S REMARKS FOR
A WIST SYMPOSIUM
11-30-99

The Federal Transit Administration (FTA) plays an important role for Weather Information for Surface Transportation. FTA is working with the Federal Highway Administration and the other modal administrations to encourage deployment of intelligent transportation to improve transportation system management. Information on weather conditions is essential for air quality planning, incident management, transit fleet management, freeway management, and traveler information.

What Are A Few Current Examples of Improving Weather for Transit?

TRANSIMS

One of the systems that FTA has implemented to improve weather is through TRANSIMS. What is TRANSIMS? TRANSIMS is a transportation analysis and simulation system that is an integrated regional transportation systems and environmental analysis model, developed by the U.S. Department of Request for Research for Transportation and Los Alamos National Laboratory. The TRANSIMS monitors air quality models, which includes microcirculation output time and location of vehicle second by second, speed inferred from change in location, speeds travel, and national Weather Service data.

TRANSIMS began in FY 94 and will be completed by the summer 2001. TEA-21 authorized 25 million dollars to complete this project and support deployment. The first application demonstrated was in Dallas, TX which demonstrated microsimulation and tracked individual vehicles. The second application of TRANSIMS began in Portland, Oregon in July 1997.

TRANSIMS is also an intermodal route planner. To develop initial travel plans for each vehicle and individual using route selection algorithm. Travel experience from the microsimulation will feed back into the route planner to refine the paths. The scope of TRANSIMS is that is will provide simulated roadway physical donations, vehicle intersection, air quality: emissions, traveler activities and trips, vehicle mix and performance, information for individuals households and travelers.

Salt Lake City Winter Olympics of 2002

What other important Intelligent Transportation systems (ITS) has FTA developed that will help make the Salt Lake City Winter Olympics in 2002 a more safer environment? FTA working with DOT in using Global Positioning Satellites, Geographic Information Systems, Advanced Vehicle Locator Systems to keep buses, light rail, and keep pedestrians safe, and using variable information signage, and automatic passenger counting data streams to assess fleet management strategies. The ITS strategies for safe

weather includes proposing a global positioning systems (GPS) Olympic fleet of 1600 vehicles, 500 vehicles for athlete systems, 350 buses for media systems and 750 cars/vans for the Olympic family system. Olympic visits and parking participants would have access to real time traveler information, pedestrian and parking information and incident management and other elements of ITS which would be augmented with the recently operational Advanced Traffic Management System.

Desert Research Institute, Reno NV

Recently, FTA funded research through the Desert Research Institute (DRI) to develop and test a new remote sensing device which accurately estimates particulate emissions from motor vehicles and will quantify the contributions of zone precursor and small particulate emission from sources outside Las Vegas metropolitan areas. This technology will measure particle concentrations in plumes that trail each vehicle. It will be possible to distinguish particulates from exhaust emissions and re-entained road dust. Part of Las Vegas's air pollution problem is attributed from the Los Angeles air basis and the San Joaquin Valley The study will quantity the contribution of ozone precursor and small particulate emission from sources outside the Las Vegas metropolitan area by deploying doppler sodar remote wind sensors to ensure upper air wind parameters for a 6-month period. The data from the remote wind sensors will be coupled with other advanced meteorological and dispersion modeling to differentiate between locally produced emissions and contributions from distant sources. This is a rational preliminary step in developing a workable air quality attainment strategy for the Las Vegas area.

FTA's Future Research with the National Weather Service

FTA hopes to propose more real-time Weather Information for Bus Transit Operators. Working with the National Weather Service, FTA needs to disseminate real-time weather information and road/route conditions to transit bus operators. Frequently, during inclement weather conditions (e.g. severe snowstorms, freezing precipitation, severe thunderstorms, and flooding events) the transit/bus operators do not receive accurate information about weather conditions, especially in rural areas of the country. Systems and better algorithms need to be developed that would translate real time weather conditions from the traffic control center and relay this information to transit operators.

Who Would Benefit? School Bus drivers, transit bus drivers, transit authorities, and the customers. The result is a safer environment. If bus drivers know the actual weather conditions, then they will be better prepared to handle the dangers of traveling during bad weather. This information would be used by transit authorities nationwide. Weather information would be an important factor in day-to-day transit travel decisions.

MEMORANDUM FOR DEPUTY SECRETARY OF TRANSPORTATION
MORT DOWNEY

FROM: PEGGY ABRAHAMSON

DATE: November 24, 1999

SUBJECT: Weather Symposium Draft (#3)

This draft has been reviewed by program experts here in DOT and by the OFCM as well. The Bureau of Transportation Statistics has not gotten back to me with the percentages of American people who travel by plane and by surface transportation, but I told them I need the information no later than Monday morning. Otherwise, I think this draft is just about ready for prime time.

P.S. I hope you have a wonderful Thanksgiving.